

H.M.A.S. "OTWAY"

SMALL SCALE DIAGRAMS

HSM PB22

164A/0300/001

PLAN No. ~~246 OTWAY CO4~~

NAVY OFFICE CANBERRA

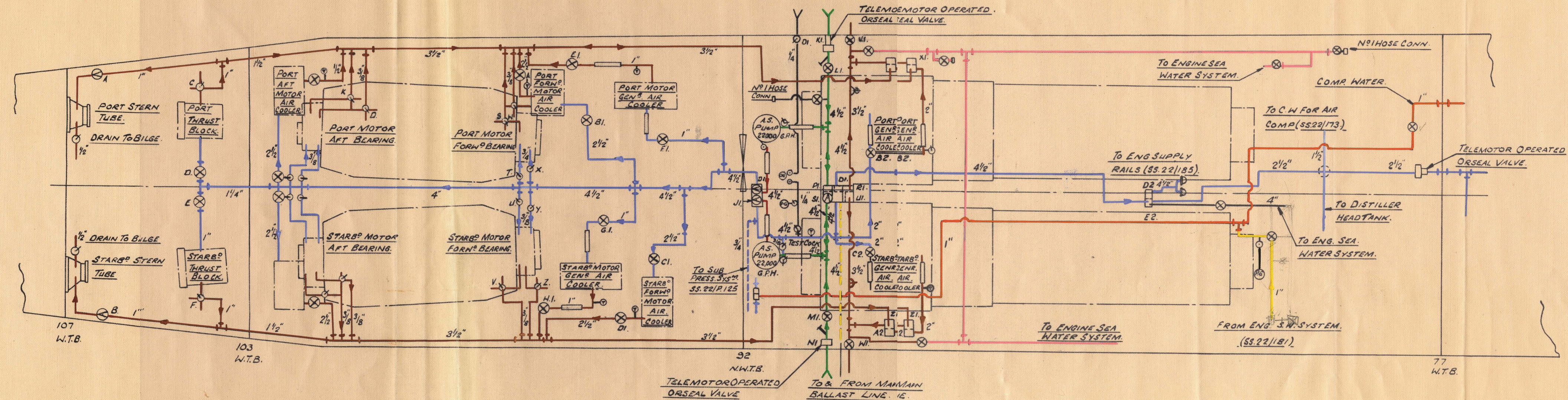
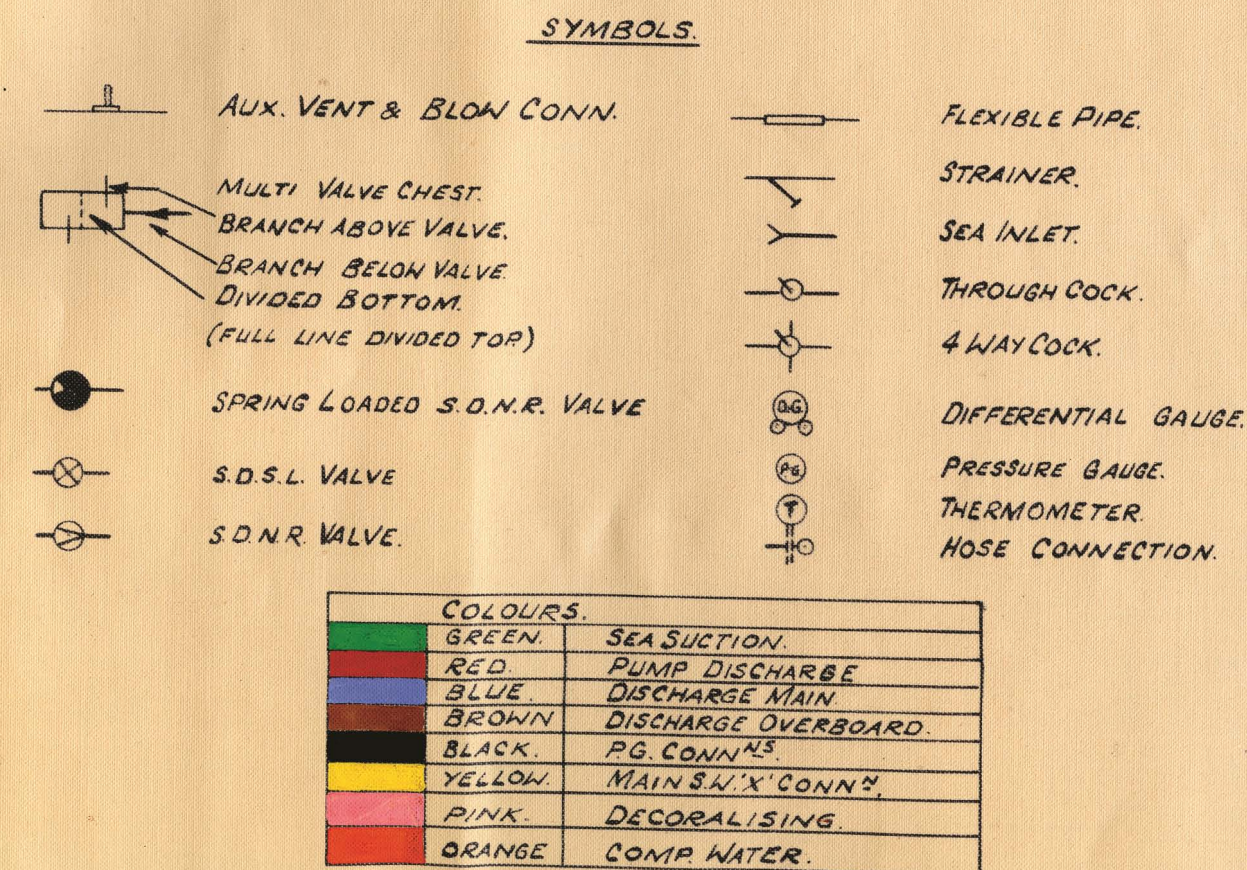
COPY NO. 2

NAVAL
CONSTRUCTOR OVERSEEN
12 AUG 1968
Messrs. Scott's S. & E. Co. Ltd.
GREENOCK.

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MOD(N) DRAWING NO	NAVY OFFICE DRG REF. NO	TITLE	SHEET NO
SS.22/177	164A/5010/001-003	ARRANGEMENT OF AFT SERVICES CIRCULATING WATER.	1
SS.22/181	164A/5001/001-003	" " ENGINE SEA WATER SYSTEM.	2
SS.22/173	164A/5010/004-005	" " CIRCULATING WATER TO H.P. AIR COMPRESSORS.	3
SS.22/413	—	" " COOLING WATER TO A/C & REFRIGERATING PLANTS.	4
SS.22/185	163P/4004/004	" " ENGINE FRESH WATER SYSTEM.	5
SS.22/195 SHEET 1	164A/4601/001-002	" " LUB. OIL PRESSURE SYSTEM.	6
" " " 2	164A/4601/005-006	" " " " PURIFYING, FILLING & DRAINING SYSTEM.	7
" " " 3	164A/4601/003-004	" " " " SCAVENGE SYSTEM.	8
SS.22/209	163P/4135/001-002	" " FUEL OIL SYSTEM IN ENGINE ROOM.	9
SS.22/252	164A/4425/001-004	" " ENGINE EXHAUST SYSTEM.	10
SS.22/233	164A/2001/001	" " H.P. AIR SERVICE.	11
SS.22/227	163P/4141/001-002	" " ENGINE AIR STARTING SYSTEM.	12
SS.22/P.059	164A/4601/002	" " H.P. DIRECT BLOW.	13
SS.22/P.029 SHEET 1	164A/5301/002	" " TELE MOTOR SYSTEM (MAST, BOW & STERN CAP & MN. ENG. TURNING GEAR.)	14
" " " 2	" " "	" " " " (T.O. VENTS, WARPING & CAPSTAN GEAR)	15
" " " 3	164A/5301/006	" " " " (HYDROPLANE - O.M.C.)	16
" " " 4	164A/5301/007	" " " " (STEERING GEAR - O.M.C.)	17
" " " 5	" " "	" " " " (ALK. FLOAT EQUIPMENT.) DELETED	18
SS.22/411	164A/5501/001	" " DISTILLER FRESH WATER & BRINE SYSTEM.	19
SS.22/	164A/5800/001	" " FREON SYSTEM.	20
SS.22/P.044	164A/0331/006	" " AUXILIARY VENT & BLOW SYSTEM.	21
SS.22/P.074	164A/0333/001	" " L.P. BLOW SERVICE	22
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SS.22/P.139	164A/0330/001	" " OIL FUEL IN SHIP.	26
SS.22/P.169	164A/0313/001	" " SHIP VENTILATION SYSTEM.	27
SS.22/P.254	163P/0327/001	" " ELECTROLYTE AGITATION SYSTEM.	28
SS.22/	164A/0332/001	" " WATER SERVICE & TRIM LINE.	29
SS.22/	164A/0328/001	" " SHORT INDUCTION MAST FLOODING & DRAINING.	30
SS.22/	164A/0334/025	" " SANITARY SYSTEM.	31
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H.M.A.S. "OTWAY"
 DIAGRAM OF AFTER SERVICES
 CIRCULATING WATER SYSTEM.
 DRAWING Nº M.O.A.- 3-1.



INSTRUCTION PLATE TO BE FIXED
 ADJACENT TO 'X' CONNECTION CHEST.

AFT SERVICE & CIRC WATER SYSTEM "X" CONNS. CHEST

DISCH. OVERBOARD PORT.	R.I.	U.I.	DISCH. OVERBOARD STARB.
FORW. SERVICE.	Q.I.	LOCKED T.I.	MAIN LINE PUMP DISCH.
SEA SUCTION PORT.	R.I.	SHUT. S.D.N.R.	SEA SUCTION STARB.
PORT PUMP SUCTION			STARB. PUMP SUCTION.

INDICATES DIVISIONS & CONN. ABOVE VALVES.
 " " " " BELOW "

SUCTIONS.	OPEN	SHUT
PORT PUMP FROM STARB.	R.I.	S.I.
STARB. PUMP FROM PORT	P.I.	S.I.
STARB. PUMP AS BALLAST PUMP	S.I.	P.I.
PORT PUMP AS BALLAST PUMP	P.I. & S.I.	
DISCHARGES.		
OVERBOARD PORT.	Q.I. & R.I.	T.I. & U.I.
OVERBOARD STARB.	Q.I. & U.I.	T.I. & R.I.
TO FORW. SERVICES.	Q.I.	R.I., U.I., T.I.
BALLAST PUMP AS CIRC. PUMP.	T.I. & Q.I.	P.I., S.I., R.I., U.I.

H.M.A.S. "OTWAY."

DIAGRAMMATIC ARRANGEMENT

OF ENGINE SEA WATER SYSTEM.

DRAWING No. MOA-3-2.

COLOURS.

RED		COOLER INLETS S.W.
BLUE		COOLER OUTLETS S.W.
GREEN		PUMP SUCTION.
YELLOW		PUMP DISCHARGE
BLACK		PRESSURE GAUGE CONNS.

SYMBOLS.

MULTI VALVE CHEST.
DIVIDED BOTTOM.
(FULL LINE DIVIDED TOP)

BRANCH ABOVE VALVE.

BRANCH BELOW VALVE.

S.D.S.L. VALVE.

SEA INLET GRATING.

FLEXIBLE PIPE.

STRAINER.

100 LB. RELIEF VALVE.

THROUGH COCK.

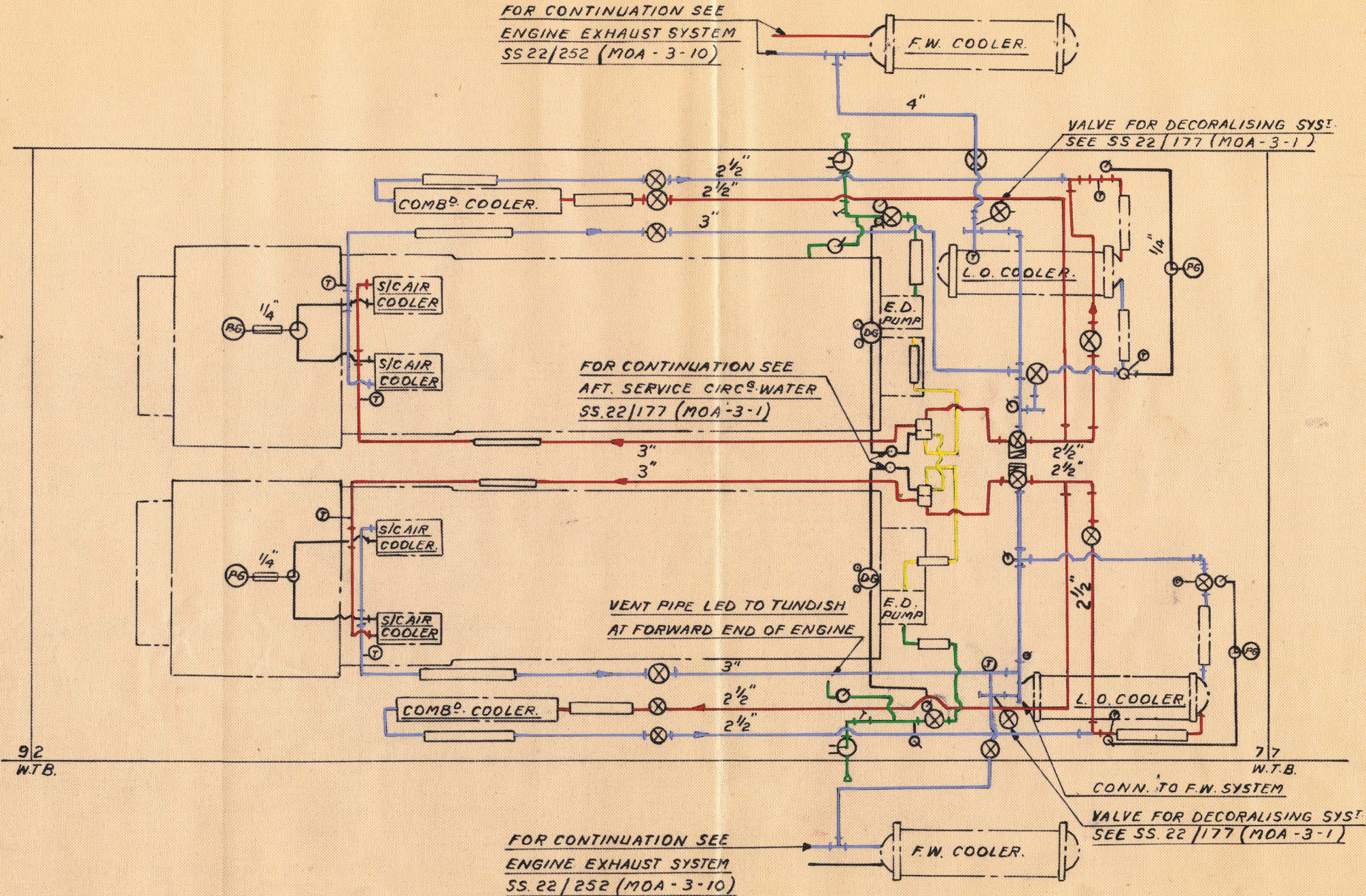
L PORTED COCK.

PRESSURE GAUGE.

DIFFERENTIAL GAUGE.

THERMOMETER.

POWER OPERD. L. PORTED COCK.



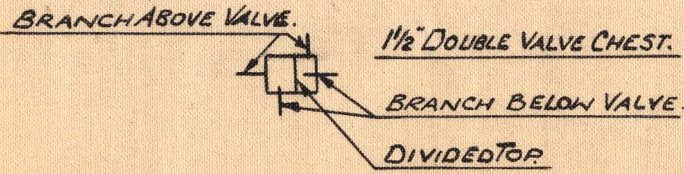
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DIAGRAMMATIC ARRANGEMENT

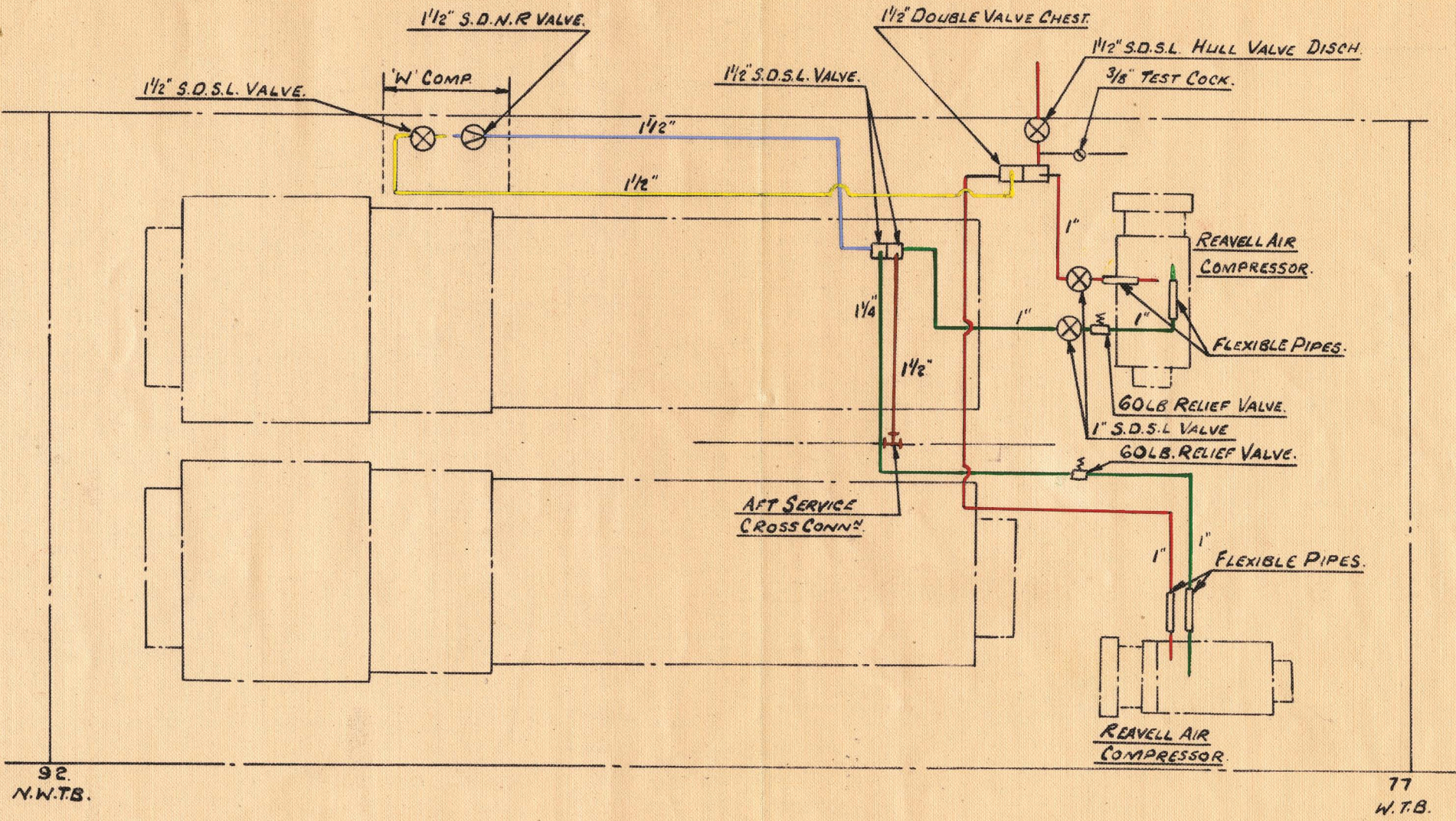
OF CIRCULATING WATER TO

HP AIR COMPRESSORS.

DRAWING Nº M.O.A. 3-3.



COLOURS.		
GREEN		SUPPLY TO COMPRESSORS.
RED		DISCH. TO SEA.
BLUE		SUCTION FROM 'W' COMP.
YELLOW		DISCH. TO 'W' COMP.
BROWN.		AFTER SERVICES CROSS CONN.

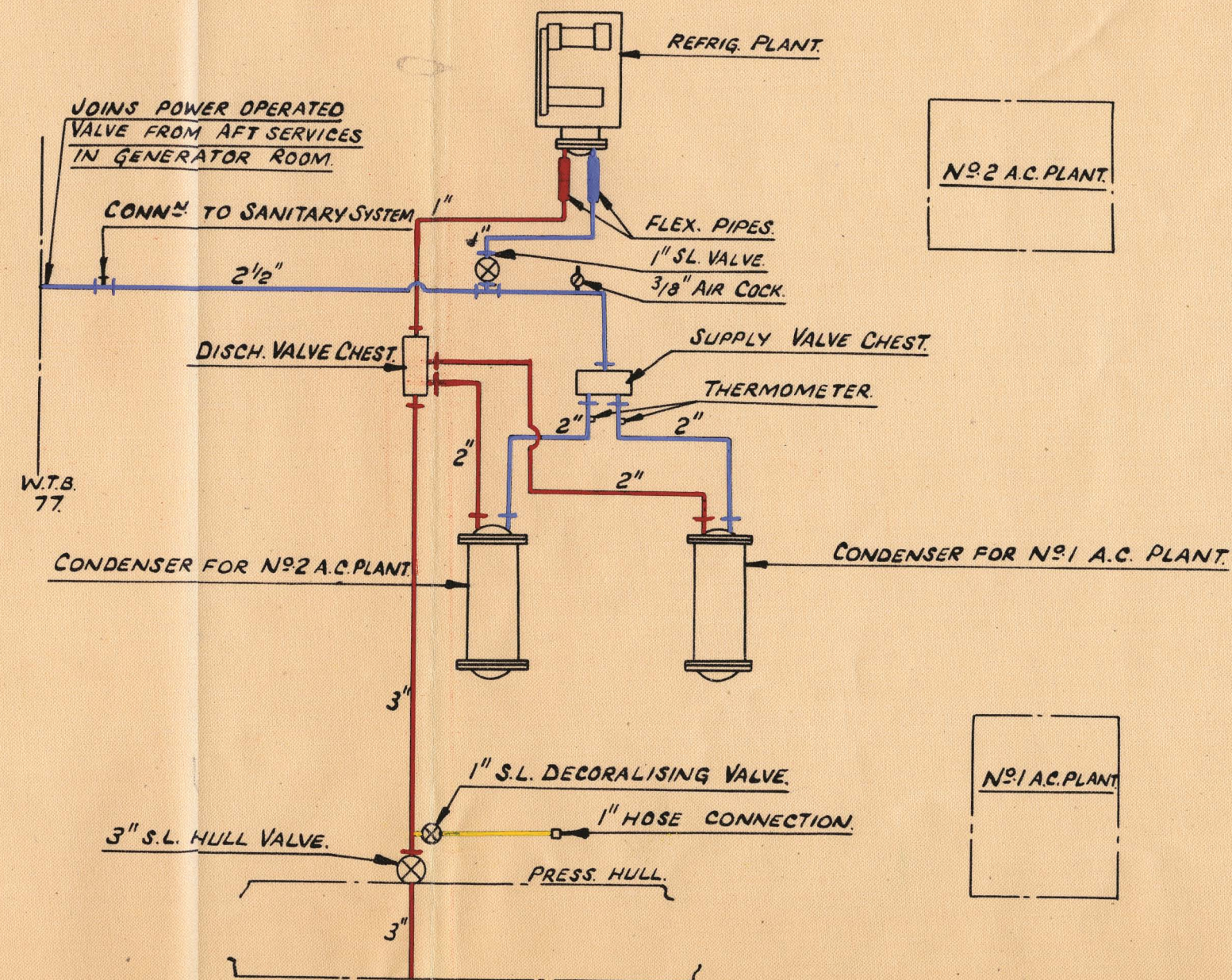


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DIAGRAMMATIC ARRANGEMENT
OF COOLING WATER FOR
AIR CONDITIONING & REFRIG. PLANTS.

DRAWING No. M.O.A.-3-4.

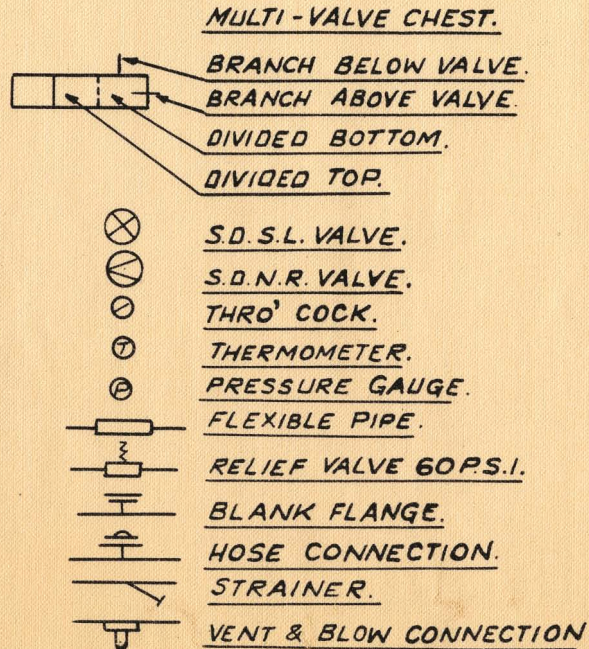
SYSTEM.	COLOUR.
A.C. & REFRIG. PLANT CONDENSER DISCH.	RED.
SUPPLY TO CONDENSERS.	BLUE.
DECORALISING LINE.	YELLOW.



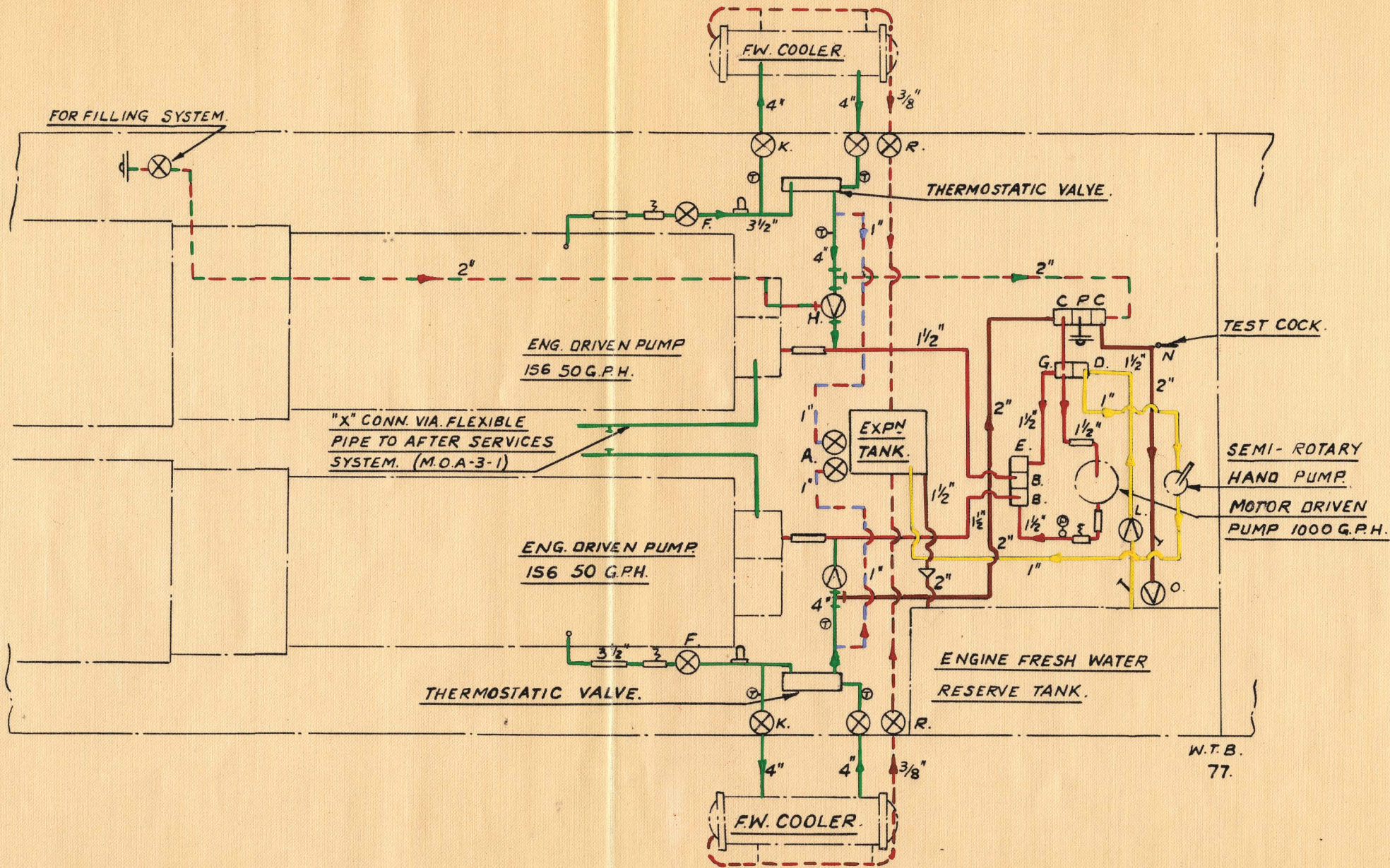
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DIAGRAMMATIC ARRANGEMENT
OF ENGINE FRESH WATER SYSTEM.

DRAWING No. M.O.A.-3-5.



COLOURS.	
GREEN	F.W. CIRCULATION.
BLUE	F.W. EXPANSION.
RED	F.W. PRIMING.
YELLOW.	F.W. CHARGING.
BROWN.	F.W. DRAINING.
BLUE & RED.	F.W. OVERFLOW.
RED & BROWN.	F.W. VENTING.
BLACK.	P.G. CONNECTIONS.
RED & GREEN.	F.W. FILLING.



PRIMING PROCEDURE.

TO COMMENCE PRIMING SYSTEM.	OPEN.	SHUT.
	A.B.F. & ENGINE & F.W. COOLER. VENTS.	C.D.E. & G.
		ENGINE VENTS.
		AS WATER REACHES THEM
START PRIMING PUMP		
WHEN WATER REACHES WORKING LEVEL OF EXPANSION TANK.	G.	A.
WHEN EXPANSION TANK OVERFLOWS.	C. HALF.	
STOP PRIMING PUMP.	A & D.	B.C. & G.
ENGINE MAY BE STARTED AS AND WHEN REQUIRED.		
WATER LEVEL IN EXPANSION TANK TO BE MAINTAINED WITH HAND PUMP.		

PROCEDURE ON STOPPING ENGINES.

START PRIMING PUMP.	OPEN.	SHUT.
	B. G. & C.	D.
STOP ENGINES.		

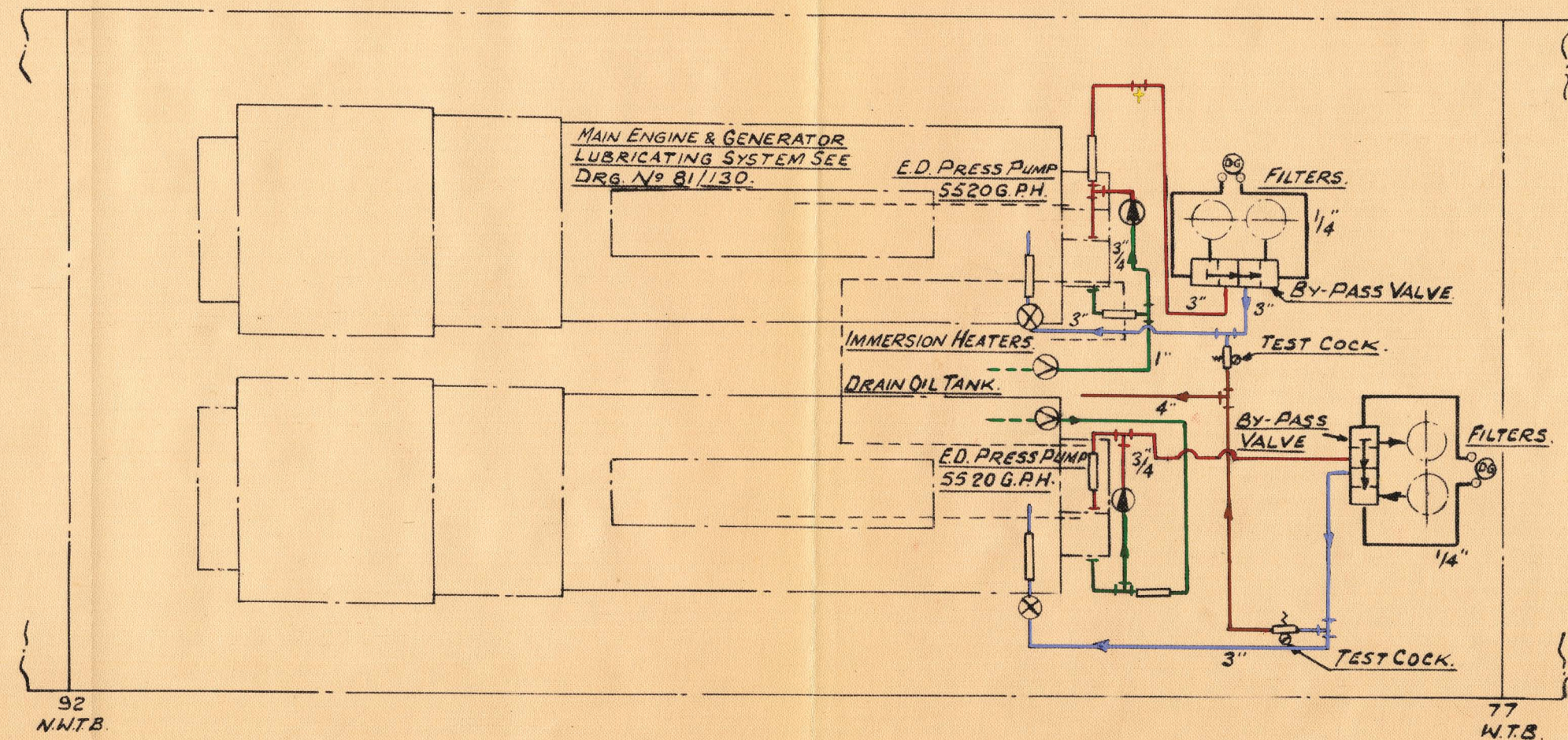
VALVE 'A' NORMALLY LOCKED OPEN.

VALVE 'E' LOCKED SHUT.

VALVE 'L' S.D.N.R. & LIFT NORMALLY TO BE IN THE NON- RETURN OR SHUT POSITION TO BE LIFTED ONLY WHEN THE HAND PUMP IS IN USE & VALVES B. & C. ARE SHUT.

VALVE 'O' LOCKED SHUT, OPEN ONLY WHEN FILLING OR DRAINING.

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 DIAGRAMMATIC ARRANGEMENT
 OF LUBRICATING OIL
 PRESSURE SYSTEM.
 DRAWING No. M. O. A.-3 -6.

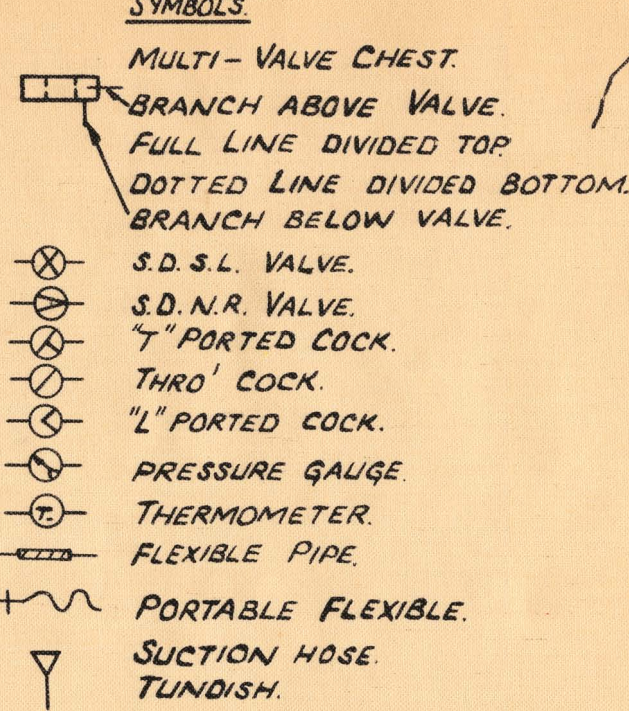


COLOURS.		
GREEN		PUMP SUCTION.
RED		PUMP DISCHARGE.
BLUE		DISCHARGE TO ENGINES.
BROWN		DRAINS TO D.O.T.
YELLOW		PRIMING SYSTEM CONNS.
BLACK		P.G. CONNS.

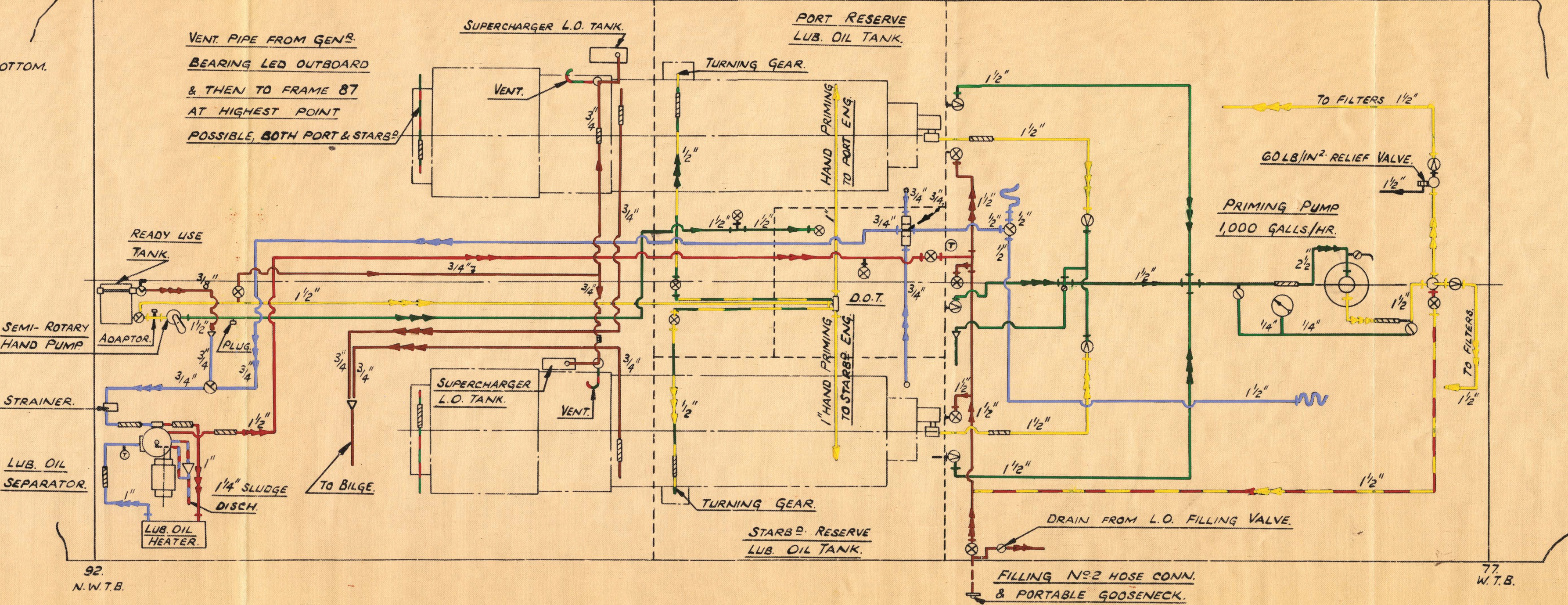
	S.D.S.L. VALVE
	S.D.N.R. VALVE
	N.R. & LIFT VALVE SPRING LOADED 60 LBS/SQ. IN.
	THRO' COCK.
	DIFFERENTIAL PRESS GAUGE.
	FLEXIBLE PIPE.
	RELIEF VALVE LOADED TO 60 P.S.I.

H.M.A.S. "OTWAY"

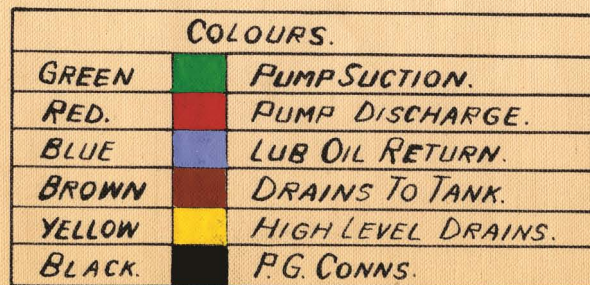
DIAGRAMMATIC ARRANGEMENT
OF LUB. OIL PURIFYING &
DRAINING SYSTEM.
DRAWING No.M.O.A.- 3-7.



COLOUR.	SYSTEM.
GREEN.	PUMP SUCTIONS.
YELLOW.	PUMP DISCHARGES.
BLUE.	SEPARATOR SUCTIONS.
RED.	SEPARATOR DISCHARGES.
BROWN.	TANK FILLING & DRAINS.
BLUE & YELLOW.	DISCHARGES TO PRESSURE SYSTEM.
YELLOW & RED.	TRANSFER LINE.
GREEN & YELLOW.	TO ENGINE TURNING GEAR.
RED & GREEN.	VENTS.
BLUE & RED.	SLUDGE DISCHARGE.
BLACK.	P.G. CONNS.



DRAWING N^o. M.O.A.-3-8.



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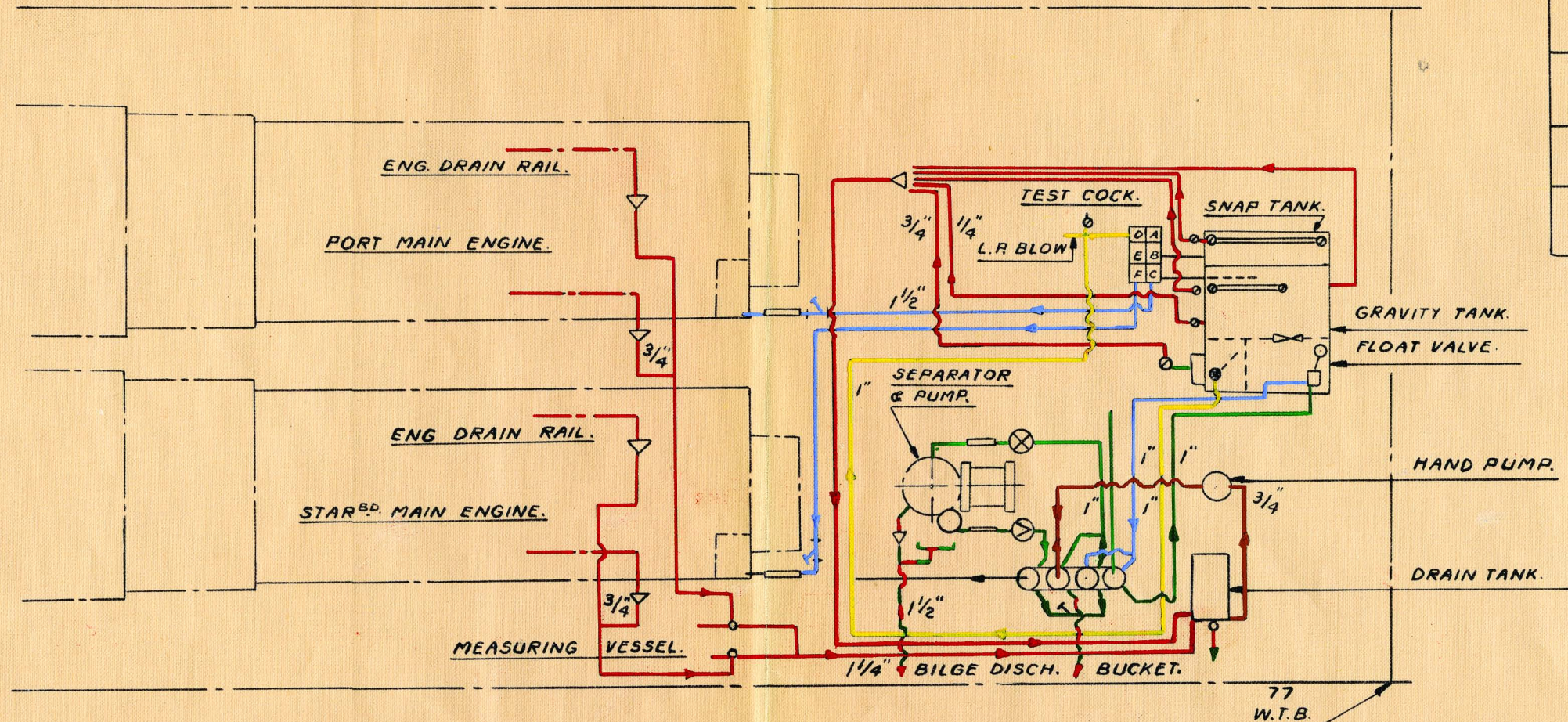
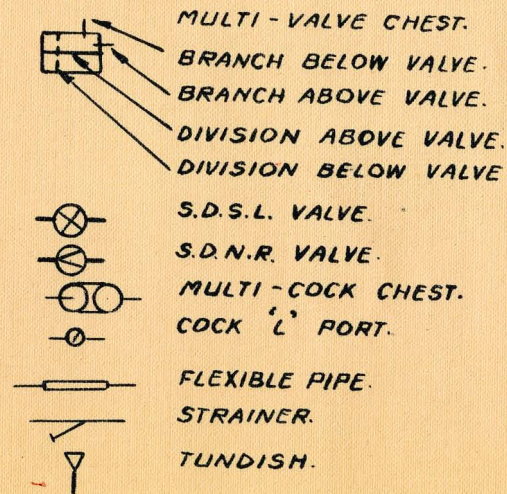
DIAGRAMMATIC ARRANGEMENT

OF FUEL OIL SYSTEM

IN ENGINE ROOM.

DRAWING N^o M.O.A.-3-9.

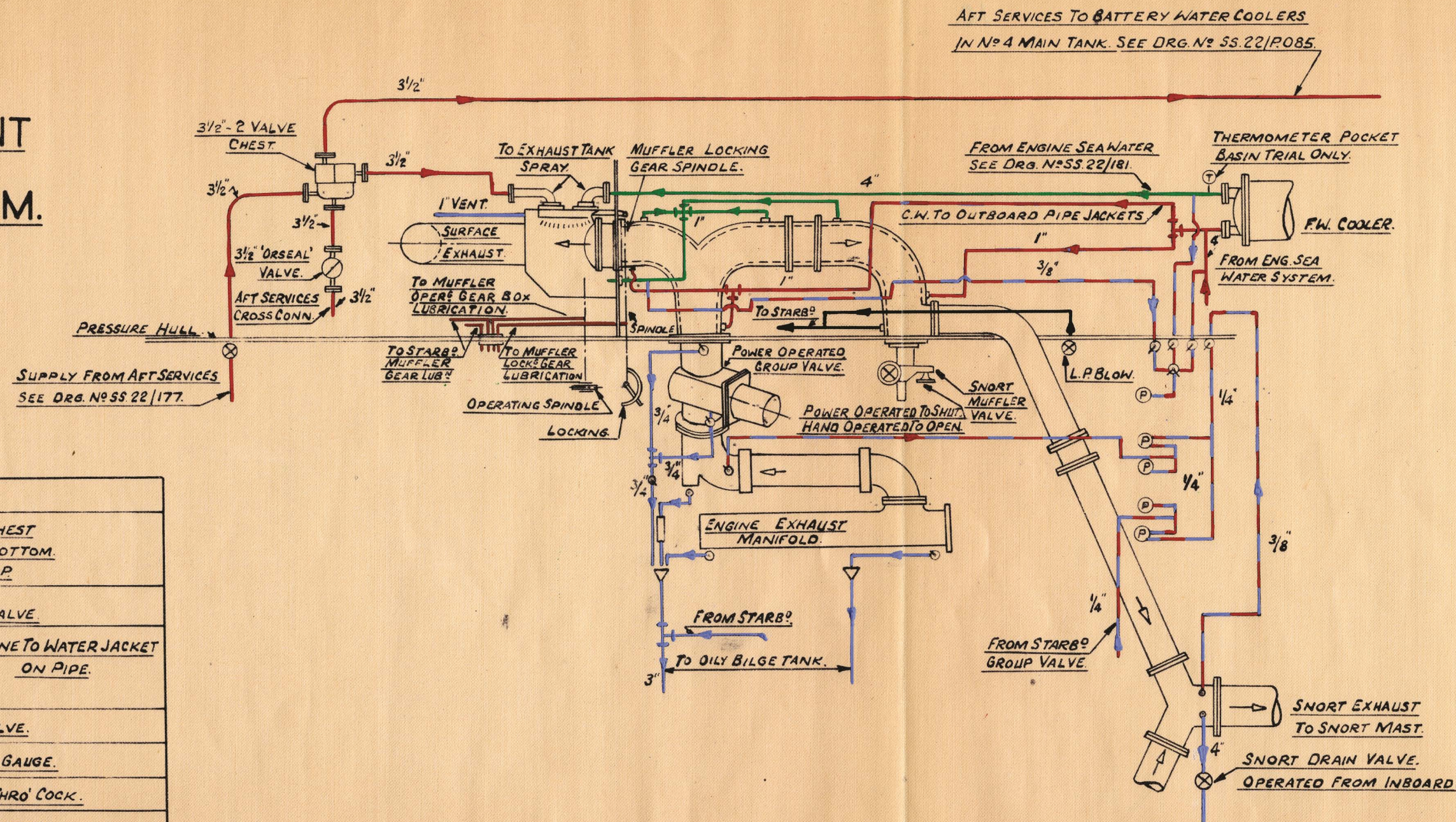
COLOURS.	
GREEN.	SUPPLY TO GRAVITY TANK.
BLUE.	SUPPLY TO ENGINES.
RED.	DRAINS TO DRAIN TANK.
YELLOW.	L.P. BLOW.
BROWN.	HAND PUMP SUCT.
RED & GREEN.	SLUDGE DISCH. TO BILGE.









OPERATIONS AT SIX VALVE CHEST.

PURPOSE.	OPEN.	SHUT.
SUPPLY FROM GRAVITY TANK. TO BOTH ENGINES.	B.C.E.&F.	A&D.
SNAP TANK TO PORT ENG. GRAVITY TANK TO STARBD. ENG.	B.&F.	A.C.D.&E.
SNAP TANK TO STARBD. ENG. GRAVITY TANK TO PORT ENG.	C.&E.	A.B.D.&F.
SUPPLY FROM SHIPS TANKS. TO BOTH ENGINES.	A.&D.	B.C.E.&F.

DIAGRAMMATIC ARRANGEMENT
OF ENGINE EXHAUST SYSTEM.
DRAWING N° M.O.A.-3-10.

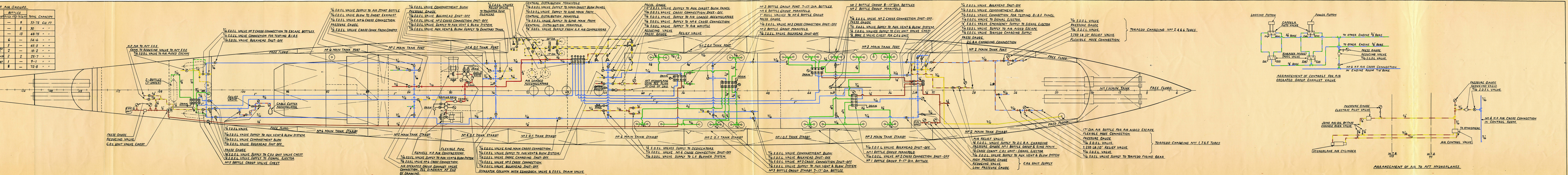


COLOURS		
	RED.	S.W. SUPPLY.
	GREEN.	S.W. OUTLET.
	BLUE.	VENTS & DRAINS.
	BROWN.	GREASE CONN.
	BLUE & RED.	PRESSURE GAUGE CONNS.
	BLACK.	L.P. BLOW.

DRAWING N° M.O.A.-3-11.

BOTTLES		TOTAL CAPACITY
	CU. FT. 3-75 CU. FT.	
—	9	33.75 CU. FT.
—	8	30 " "
—	13	48.75 " "
6	—	54.6 " "
5	—	45.5 " "
2	—	18.2 " "
2	—	25.7 " "
—	2	9.1 " "
—	—	72.8 " "

SYSTEM	COLOUR	
RING MAIN	BLUE	
SUPPLY TO BOTTLES	GREEN	
SUPPLY FROM COMPRESSORS	RED.	
SUPPLY FROM SHORE CHARGING	RED & BLACK.	
SUPPLY TO ESCAPE SYSTEMS	YELLOW	
SUPPLY TO CO ₂ UNITS.	BROWN	
SUPPLY TO TORPEDOES	BLUE & BROWN.	
SUPPLY TO VENT & BLOW LINE	BLUE & YELLOW.	
SUPPLY TO AIR WHISTLE ETC.	BROWN & YELLOW.	
SUPPLY TO AIR CHARGED ACCUM ⁴	BLACK & YELLOW.	
SUPPLY TO GROUP EXHAUST VALVE	BLUE & GREEN.	
SUPPLY CABLE CUTTER ACCUM ⁴	BLUE & RED.	
DRAINS.	BLACK.	







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DIAGRAMMATIC ARRANGEMENT





OF ENGINE AIR
STARTING SYSTEM.

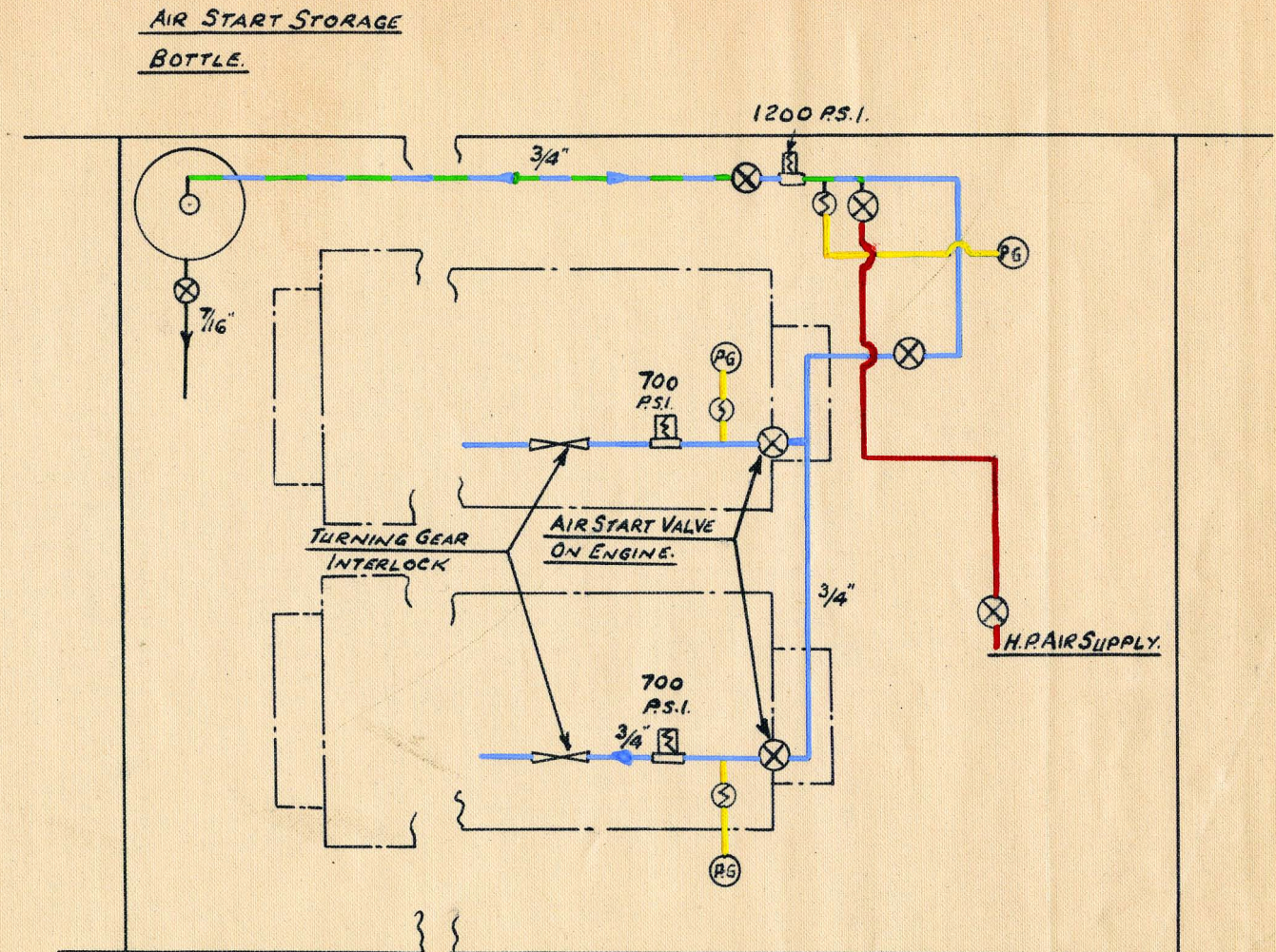
DRAWING Nº M.O.A. 3-12.

SYMBOLS.

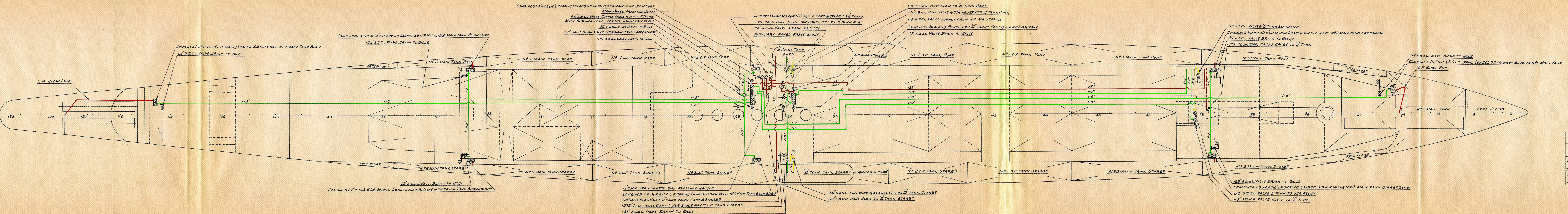
	<u>STOP VALVE.</u>
	<u>STOP & RELEASE VALVE</u>
	<u>PRESSURE GAUGE</u>
	<u>RELIEF VALVE.</u>

COLOURS.

	RED.	H.PAIR SUPPLY.
	BLUE	SUPPLY TO ENGINES.
	GREEN	SUPPLY TO AIR BOTTLE
	YELLOW	PG. CONN.



H.M.A.S. "OTWAY".
DIAGRAMMATIC ARRANGEMENT
OF H.P. DIRECT BLOW SERVICE.
DRAWING NO. M.O.A.-3-13.



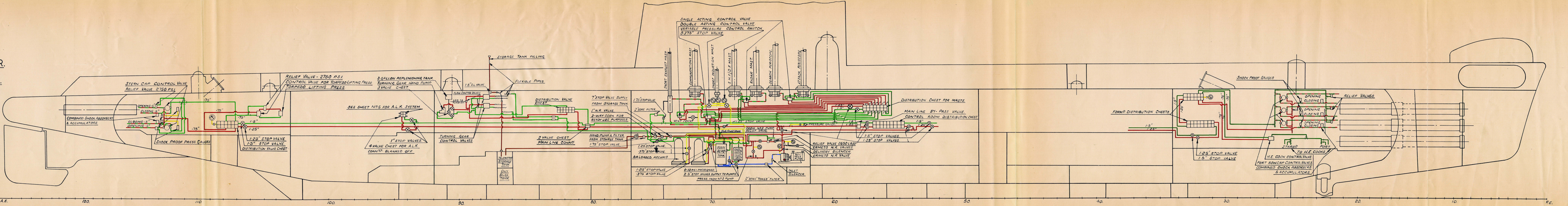
SYMBOLS.		
	SPLIT BLOW VALVE	
	S.D.S.L. VALVE	
	S.D.N.R. VALVE	
	REFLEX N.R. VALVE	
	SLUICE VALVE	
	HOSE CONNECTION	
	SPIRAX STRAINER	
	MUD BOX	
	S.D.N.R. & FLOOD	

SYSTEM.	COLOUR.	
BLOW TO TANKS	GREEN	
L.P. BLOW	RED	
PRESSURE GAUGE CONNECTIONS	BROWN	
DRAINS	BLACK	
SEA RELIEF.	YELLOW	
H.P. AIR SUPPLY	RED & BLACK	

H.M.A.S. "OTWAY"
DIAGRAMMATIC ARRANGEMENT
TELEMOTOR SYSTEM - MASTS,
STERNCAP, BOWCAP & TURNING GEAR.
DRAWING No. M.O.A.-3-14. SHEET No.1.

SYMBOLS.	
STOP VALVE.	
N.R. VALVE.	
VALVE CHEST.	
RELIEF VALVE.	
SHOCK PROOF PRESSURE GAUGE.	
PRESSURE GAUGE.	
COMBINED SHOCK ABSORBER & ACCUMULATOR.	
FLEXIBLE PIPE.	

COLOURS.	
PRESSURE.	RED.
RETURN.	GREEN.
REPLENISHING TANK TO PUMPS.	BLUE.
PRESSURE GAUGES.	YELLOW.
TANK FILLING.	BROWN.



H.M.A.S. "OTWAY"

DIAGRAMMATIC ARRANGEMENT

OF TELEMOTOR SYSTEM

SHOWING TELEMOTOR OPERATED VENTS,

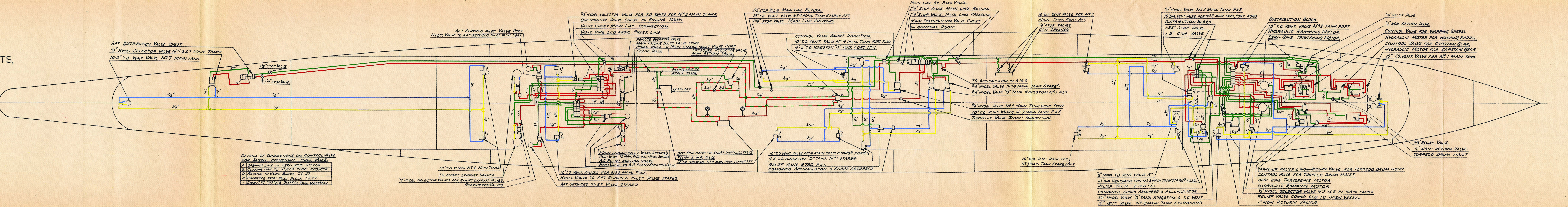
WARPING BARREL, CAPSTAN GEAR,

TORPEDO LOADING & SNORT

INDUCTION.

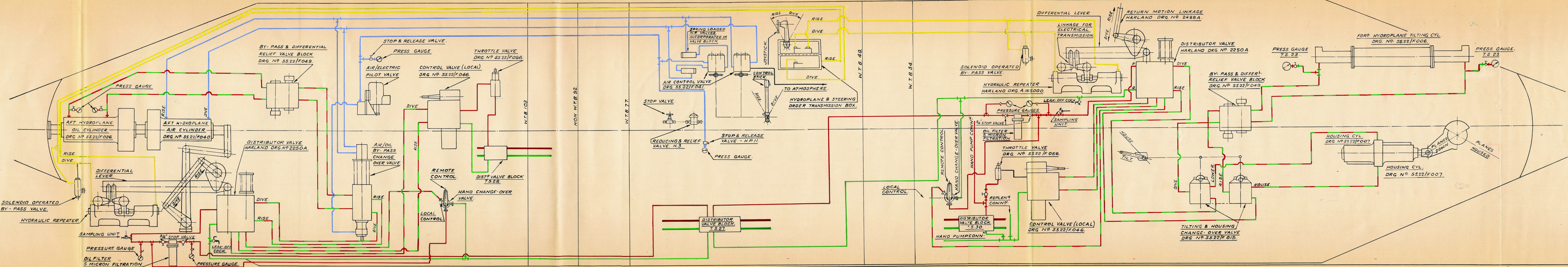
DRAWING No. M.O.A.-3-14. SHEET No.2.

COLOURS.	
RED.	PRESSURE LINE.
GREEN.	RETURN LINE.
YELLOW.	VENTS OPEN.
BLUE.	VENTS CLOSE.



H.M.A.S. "OTWAY."
DIAGRAMMATIC ARRANGEMENT
OF TELEMOTOR SYSTEM.
PIPES & FITTINGS FOR HYDROPLANES. - O.M.C.
DRAWING No M.O.A.-3-14. SHEET No.3.

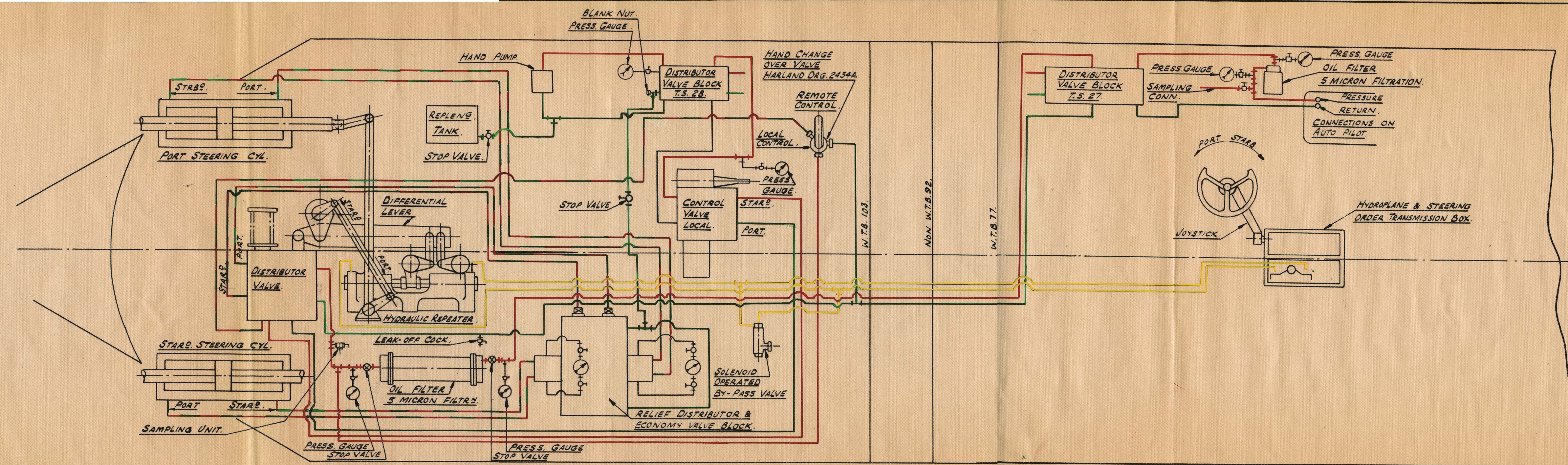
	COLOUR.	SYSTEM.
	RED.	TELEMOTOR PRESSURE.
	GREEN.	TELEMOTOR RETURN.
	YELLOW.	ONE MAN CONTROL.
	BLUE.	COMPRESSED AIR.



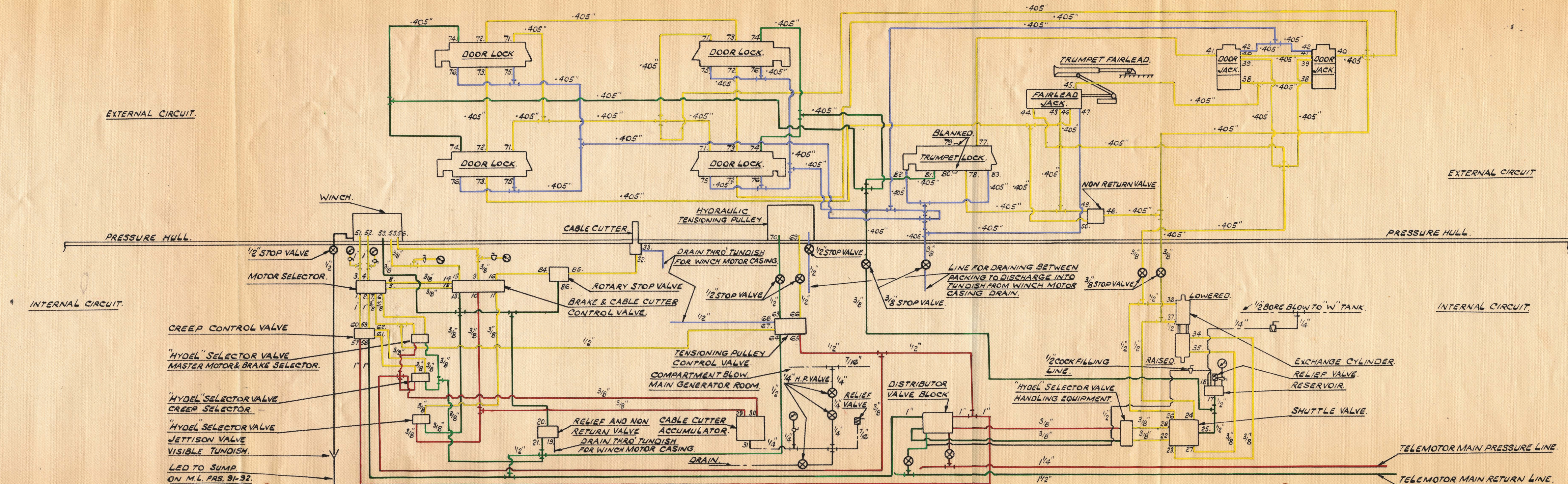
H.M.A.S. "OTWAY."
 DIAGRAMMATIC ARRANGEMENT
 OF TELEMOTOR SYSTEM.
 (PIPES & FITTINGS FOR STEERING GEAR Q.M.C.)

DRAWING No. M.O.A.-3-14. SHEET No. 4.

COLOUR	SYSTEM.
RED	TELEMOTOR, PRESSURE.
GREEN	" RETURN.
YELLOW	ONE MAN CONTROL.



H.M.A.S. OTWAY.
DIAGRAMMATIC ARRANGEMENT
OF TELEMOTOR SYSTEM.
A.L.K. FLOAT EQUIPMENT.
DRAWING No. M.O.A.-3-14.
SHEET No. 5.



H.M.A.S. "OTWAY"

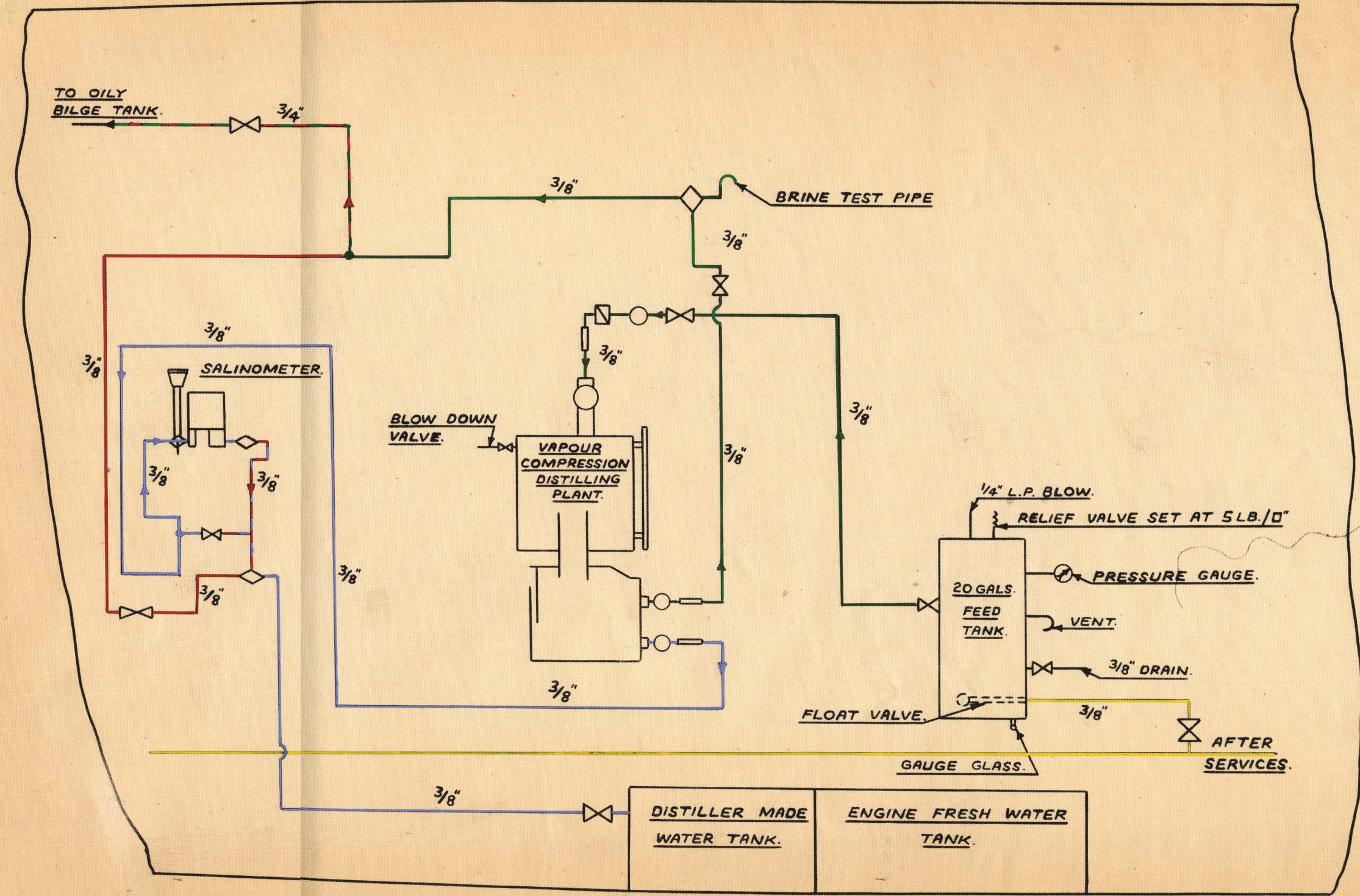
DIAGRAMMATIC ARRANGEMENT OF
DISTILLER FRESH WATER &
BRINE SYSTEM.

DRAWING N^o M.O.A.-3-15.

S.L. VALVE.	
DUPLEX STRAINER.	
THREE-WAY COCK.	
COCK.	
THERMOMETER POCKET.	
FLEXIBLE PIPE.	
FEED REGULATOR.	
TEE PIECE.	

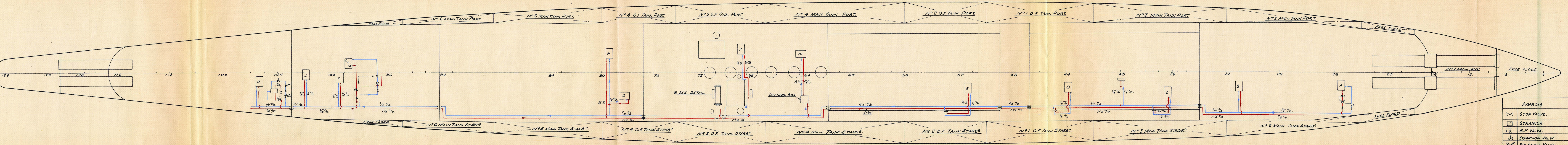
SYSTEM.		COLOUR.
CONTAMINATED WATER.		RED.
FRESH WATER.		BLUE.
BRINE.		GREEN.
SEA WATER.		YELLOW.

NOTES :- FEED WATER SUPPLY PIPES
UP TO & INCLUDING THE FEED TANK FLOAT VALVE
ARE TESTED TO 400 LB./SQ. IN.
OTHER PIPES ETC. TO 50 LB./SQ. IN.
PRIMING FUNNEL & VENTS ARE EXTENDED
UP TO CENTRE LINE OF COMPRESSOR MOTOR.

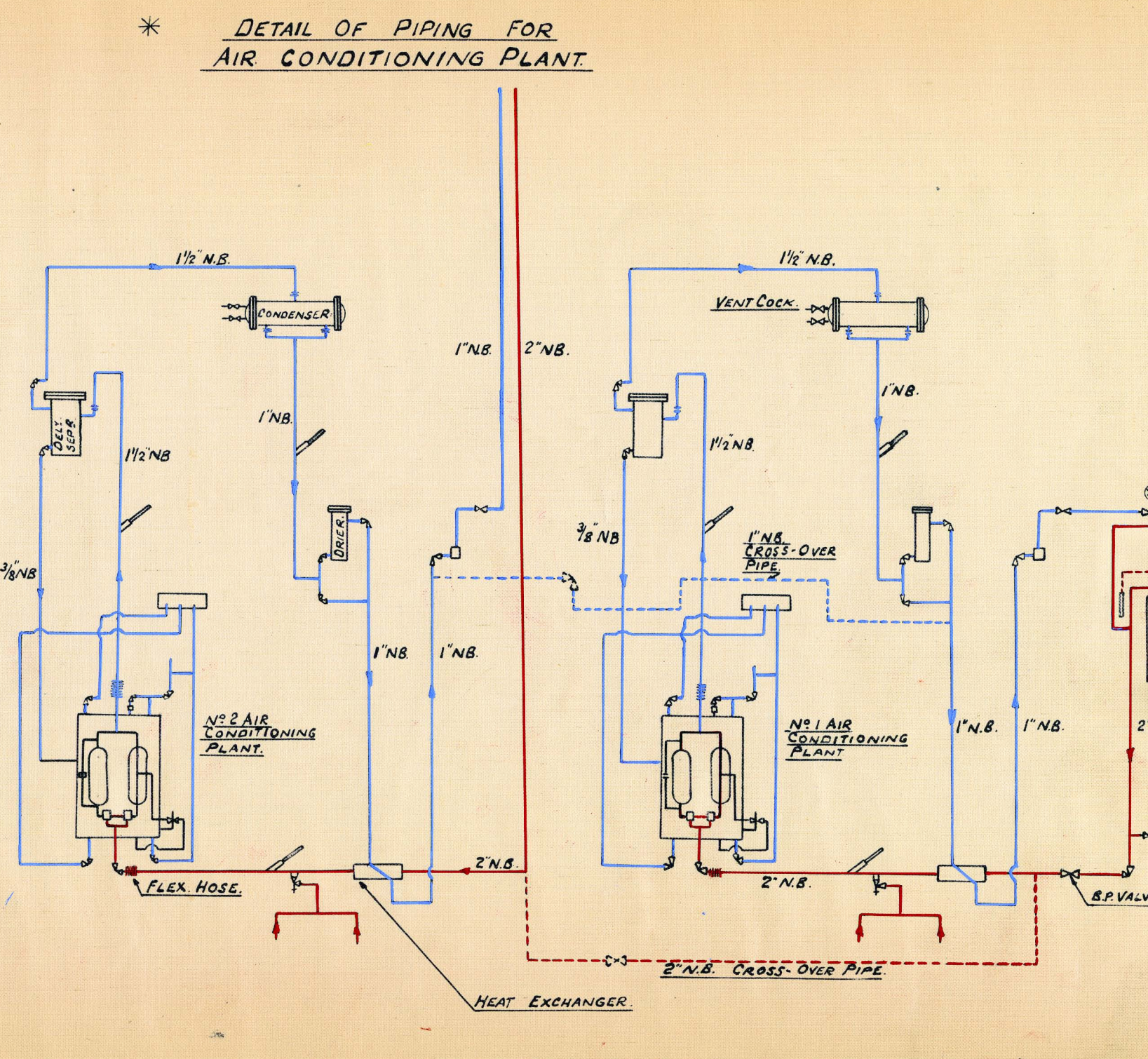


H.M.A.S. "OTWAY".
DIAGRAMMATIC ARRANGEMENT
OF FREON SYSTEM.
DRAWING N° M.O.A. 3-16.

SYSTEM	COLOUR
FREON MAIN	BLUE
FREON RETURN	RED

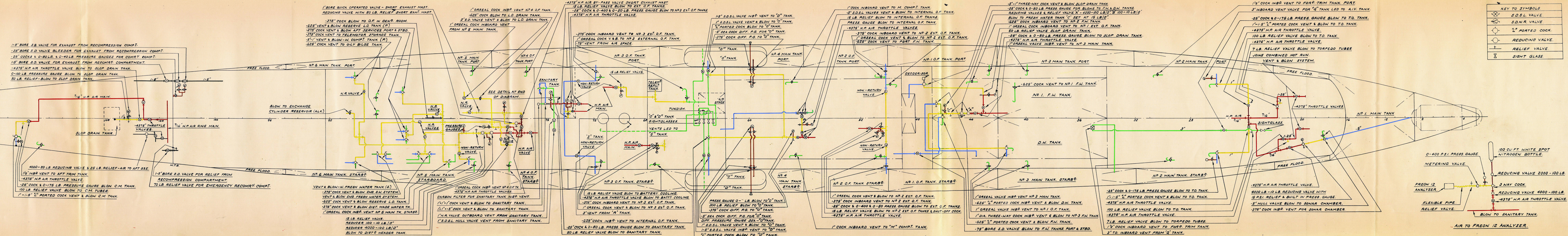








SYMBOLS.	
	STOP VALVE.
	STRAINER.
	B.P. VALVE.
	EXPANSION VALVE.
	SOLENOID VALVE.
	THERM REGULATOR.
	FLEXIBLE PIPE.
	BULKHEAD GLAND.

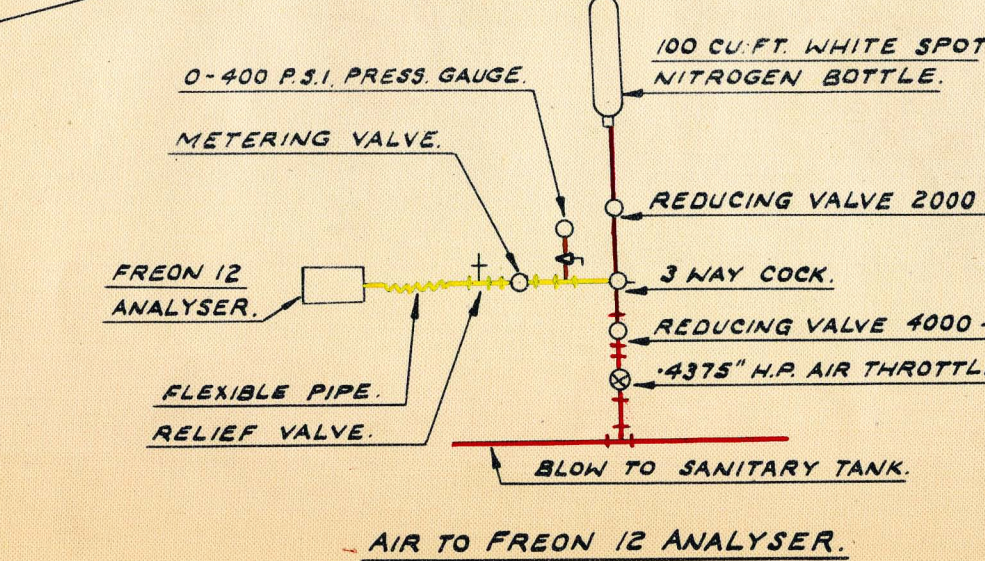


H.M.A.S. OTWAY.
DIAGRAMMATIC ARRANGEMENT OF
AUXILIARY VENT & BLOW SERVICE.
DRAWING NO 246/OTWAY/376. FLY.

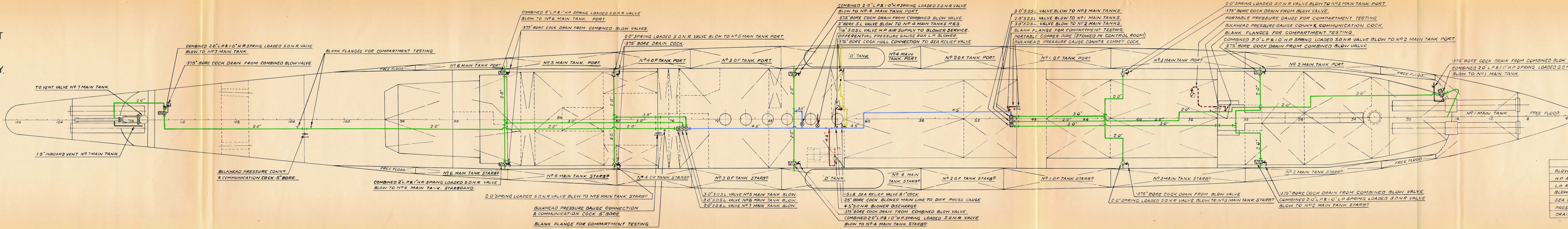
SYSTEM.		
H.P. AIR.	RED	
VENTS.	GREEN	
VENT & BLOW.	BLUE	
PRESSURE GAUGES.	BROWN	
EXHAUST FROM RECOMP. CHAMBER	BLACK	
BLOW.	YELLOW	



KEY TO SYMBOLS	
	S.D.S.L. VALVE.
	S.D.N.R. VALVE.
	"1/2" PORTED COCK.
	REDUCING VALVE.
	RELIEF VALVE.
	SIGHT GLASS.



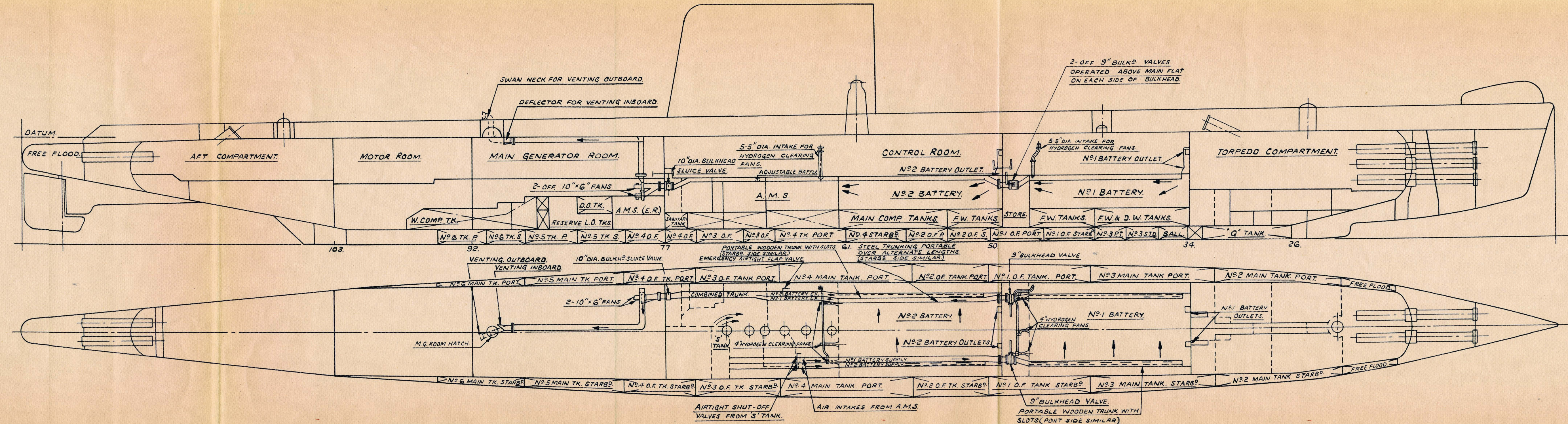
H.M.A.S. "OTWAY."
DIAGRAMMATIC ARRANGEMENT
OF L.P. BLOWER SERVICE.
DRAWING NO 246/OTWAY/361 FLY.



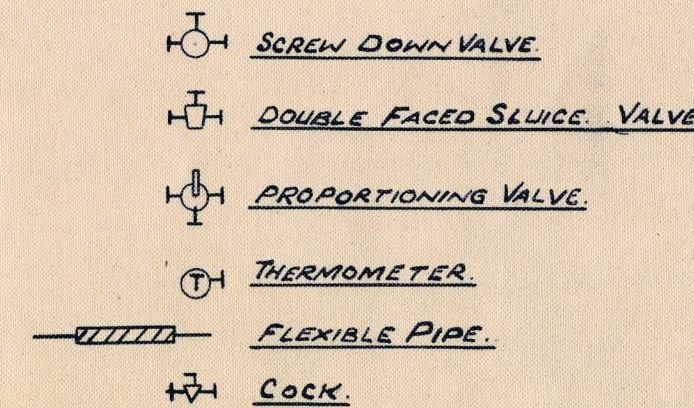
SYMBOLS.	
	STRUTS & GRIDS.
	S.D.S.L. VALVE.
	S.D.N.R. VALVE.
	REFLUX N.R. VALVE.
	SLUICE VALVE.
	HOSE CONNECTION.
	SPIRAX STRAINER.
	MUD BOX.
	S.D.N.R. & FLOOD.

SYSTEM.	COLOURS
BLOWER DISCHARGE.	RED.
H.P. AIR SUPPLY.	RED & BLACK.
L.P. AIR MAIN.	BLUE.
BLOWS TO MAIN TANKS.	GREEN.
SEA RELIEF VALVE.	YELLOW.
PRESSURE GAUGE CONNS.	BROWN.
DRAINS	BLACK.

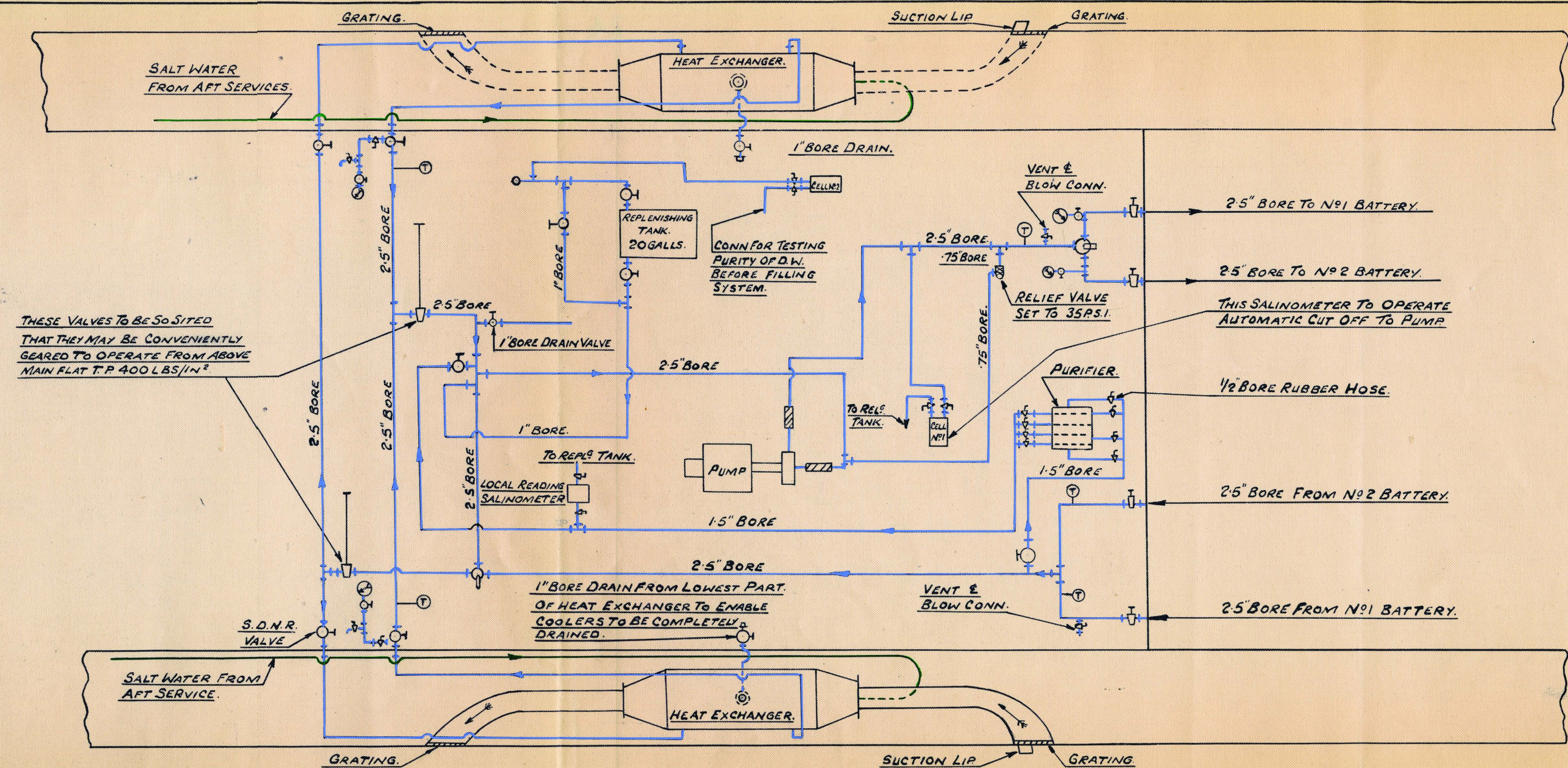
H.M.A.S. "OTWAY."
 DIAGRAMMATIC ARRANGEMENT
 OF BATTERY VENTILATION.
 DRAWING No. 246/OTWAY/404.FLY.



H.M.A.S. "OTWAY".
 DIAGRAMMATIC ARRANGEMENT
 OF BATTERY COOLING IN A.M.S.
 DRAWING Nº 246/OTWAY/366 FLY.



COLOURS.	
GREEN.	SALT WATER.
BLUE.	DISTILLED WATER.

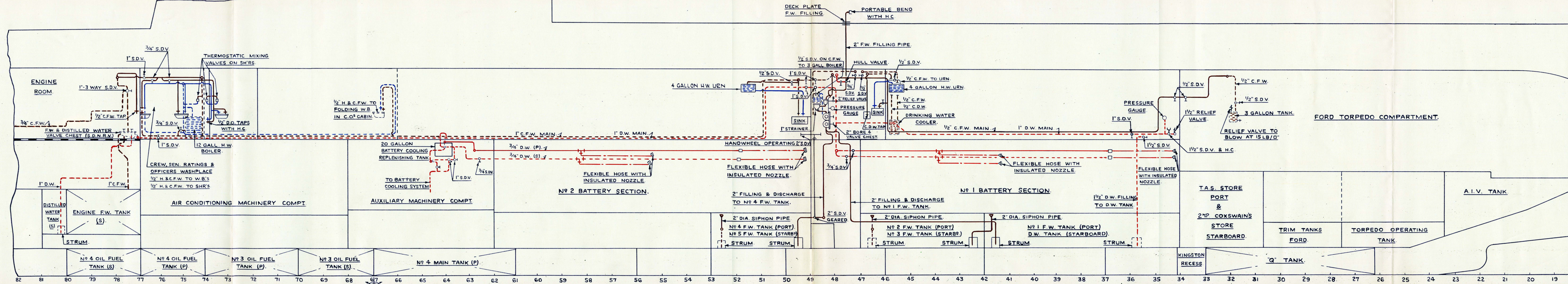
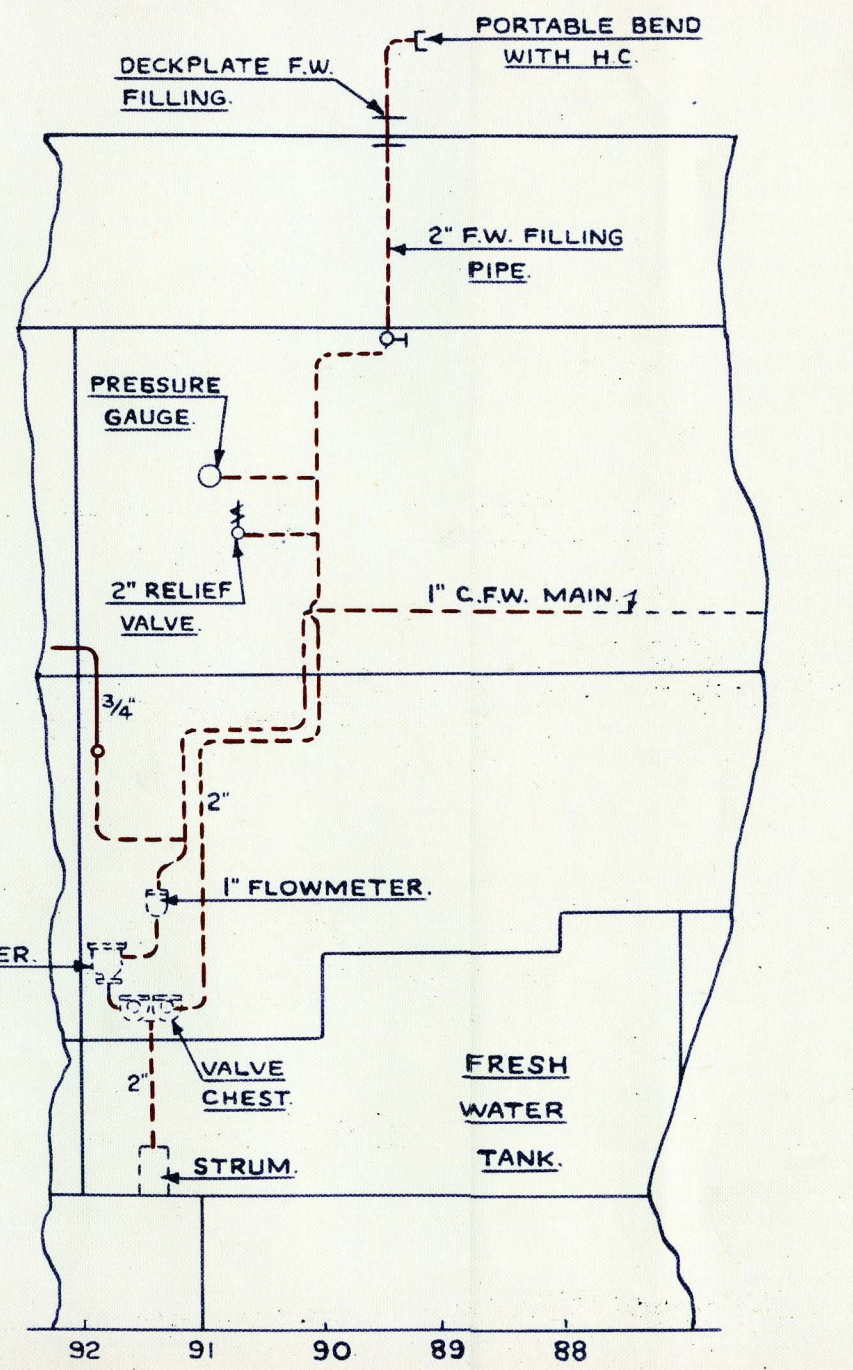
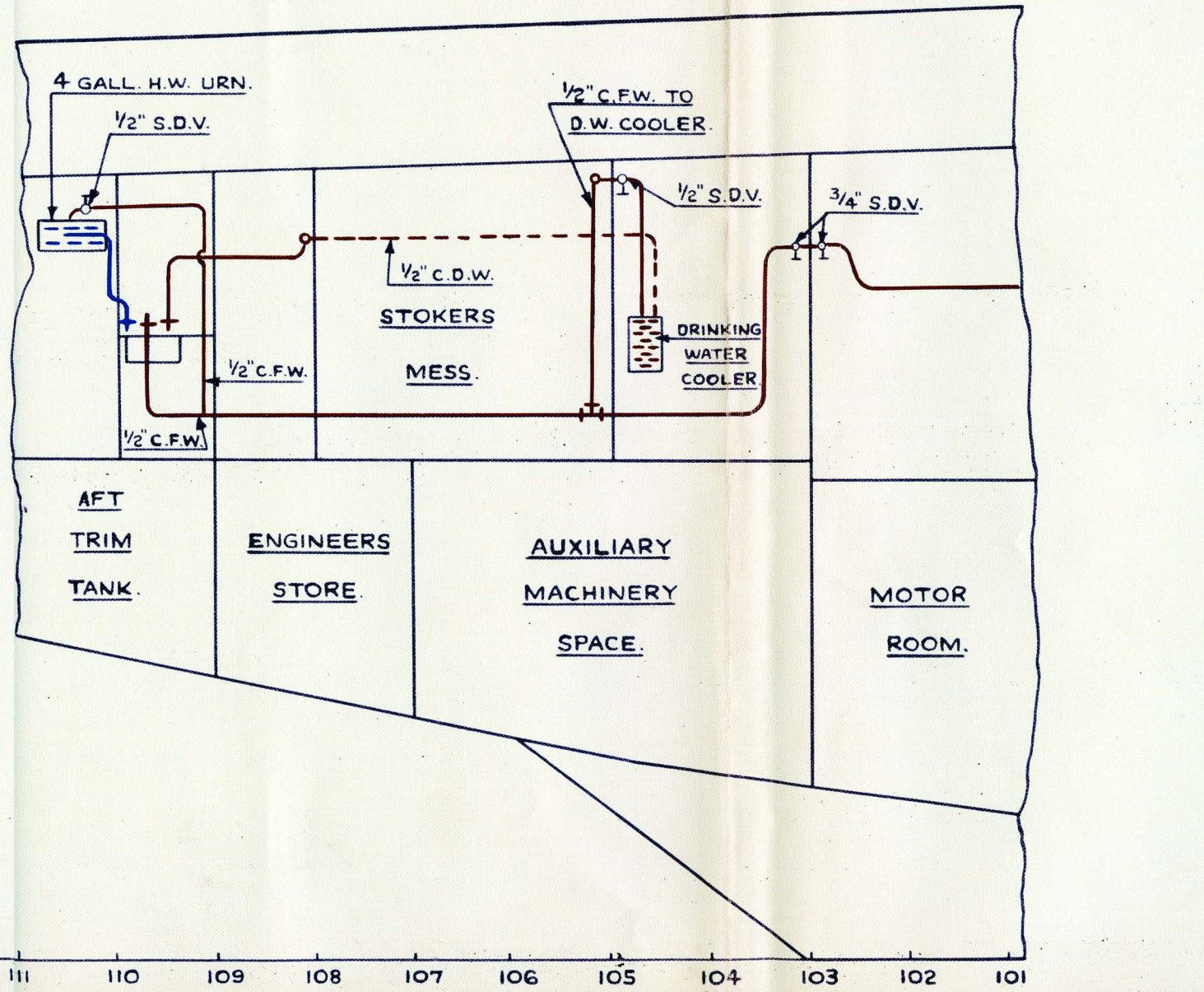


H.M.A.S. "OTWAY."

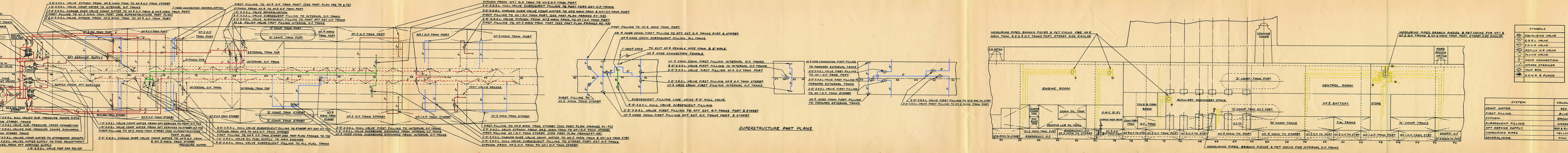
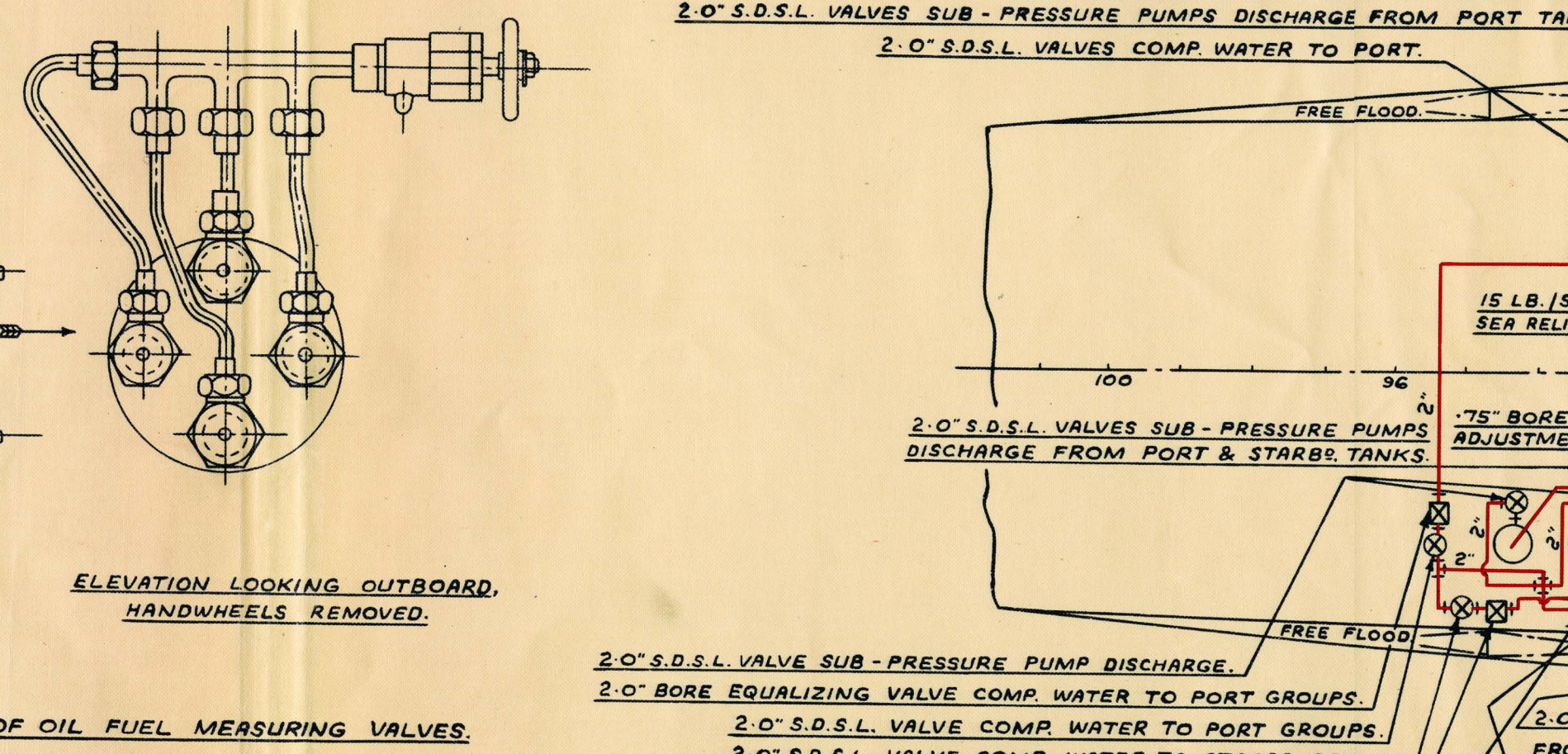
DIAGRAMMATIC ARRANGEMENT OF FRESH & DISTILLED WATER SYSTEMS.

- ABBREVIATIONS.
- C.F.W. - COLD FRESH WATER.
 - H.F.W. - HOT FRESH WATER.
 - D.W. - DISTILLED WATER.
 - S.D.V. - SCREW DOWN VALVE.
 - S.D.N.R.V. - SCREW DOWN NON-RETURN VALVE.

SYSTEM.	COLOUR.
DISTILLED WATER.	RED.
COLD FRESH WATER.	BURNT SIENNA.
HOT FRESH WATER.	BLUE.



H. M. A.S. "OTWAY".
DIAGRAMMATIC ARRANGEMENT
OF OIL FUEL SYSTEM IN SHIP.
DRAWING NO 246/OTWAY/383 FLY.



SYMBOLS.

	EQUALIZING VALVE
	S.D.S.L. VALVE.
	REFLUX N.R. VALVE
	SLUICE VALVE.
	HOSE CONNECTION.
	SPIRAX STRAINER.
	MUD BOX.
	S.D.N.R. & FLOOD.

SYSTEM.	COLOUR.
COMP. WATER.	RED.
FIRST FILLING.	BLUE.
SYPHON.	BROWN.
SUBSEQUENT FILLING.	GREEN.
AFT SERVICE SUPPLY.	RED & BLACK.
MEASURING PIPES.	YELLOW.
DECORALISING.	PINK.

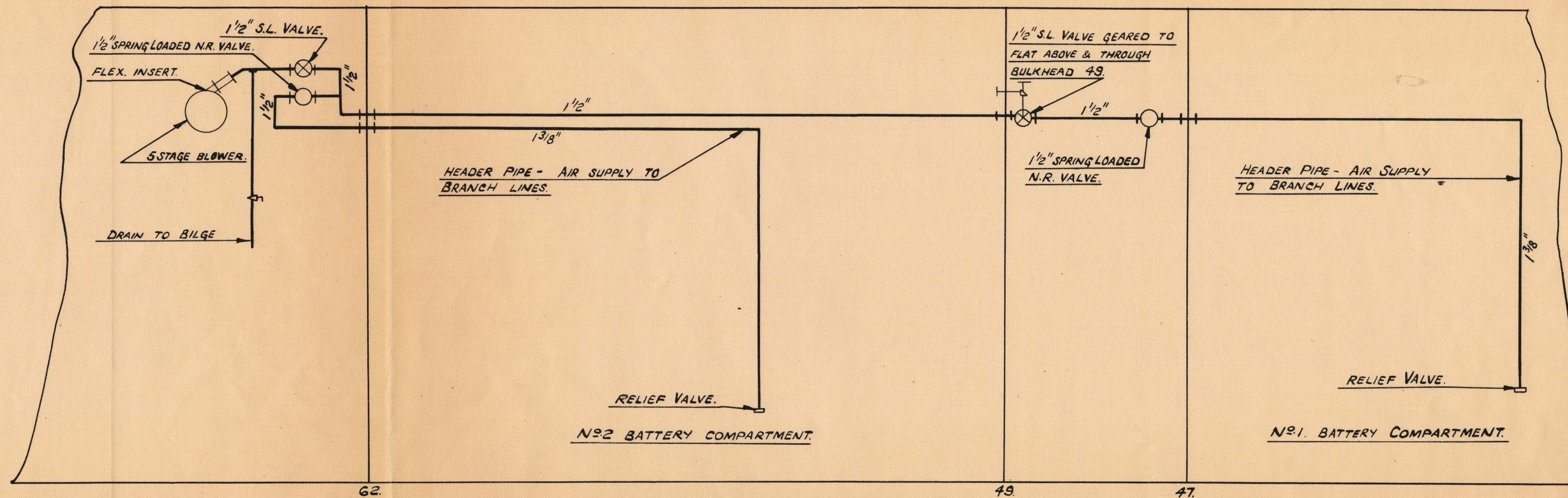
DRAWING N^o. 246/OTWAY/399 FLY.

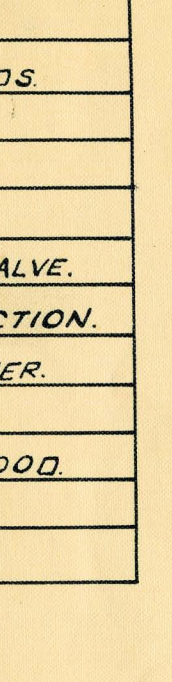


H.M.A.S. "OTWAY"

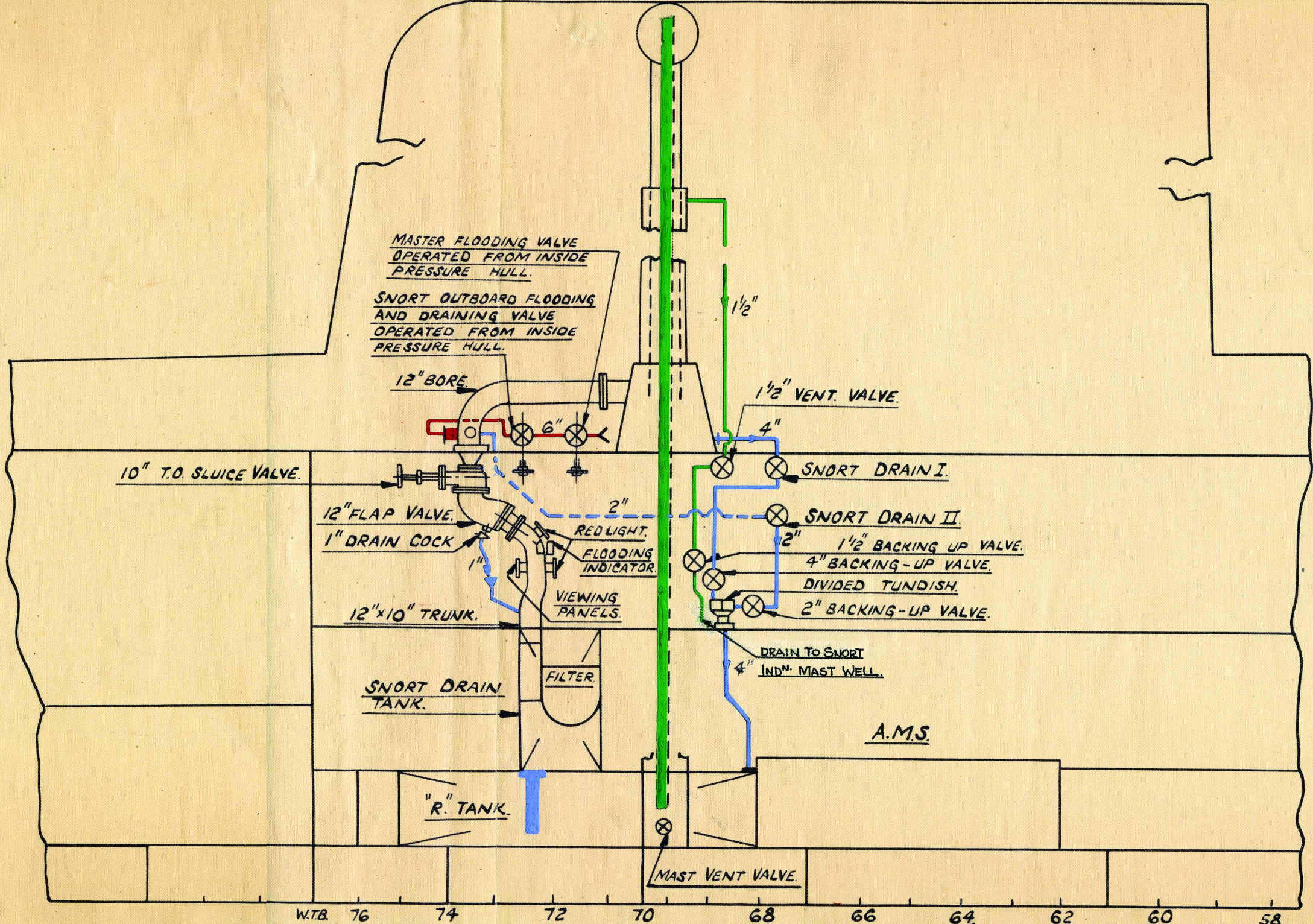
DIAGRAMMATIC ARRANGEMENT OF
ELECTROLYTE AGITATION SYSTEM.

DRAWING No. 246/412.FLY.

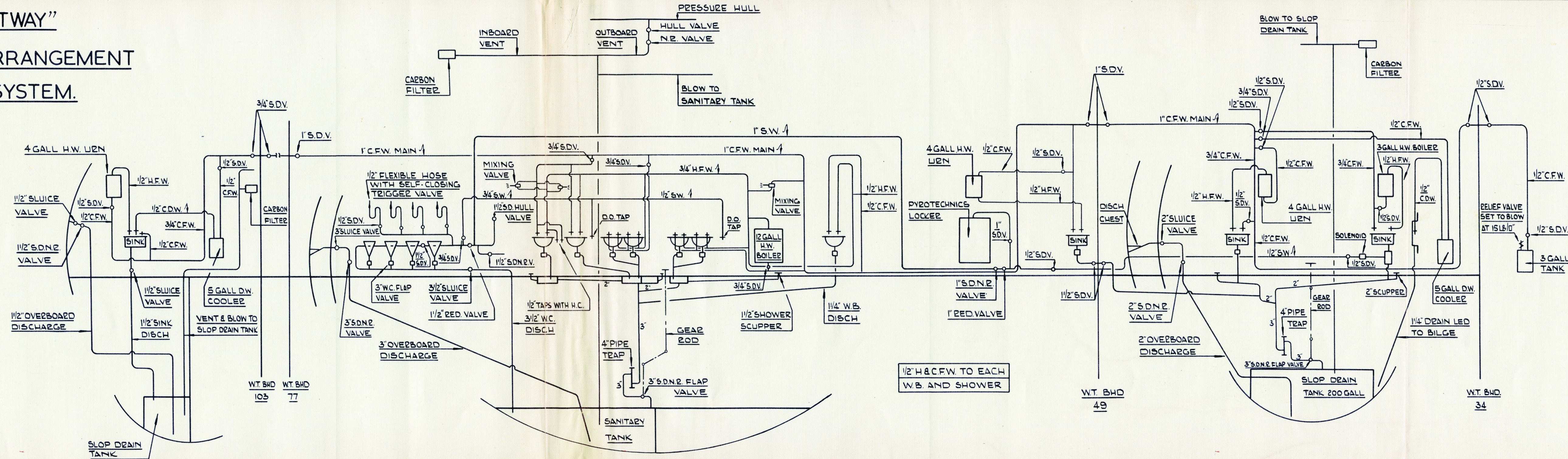




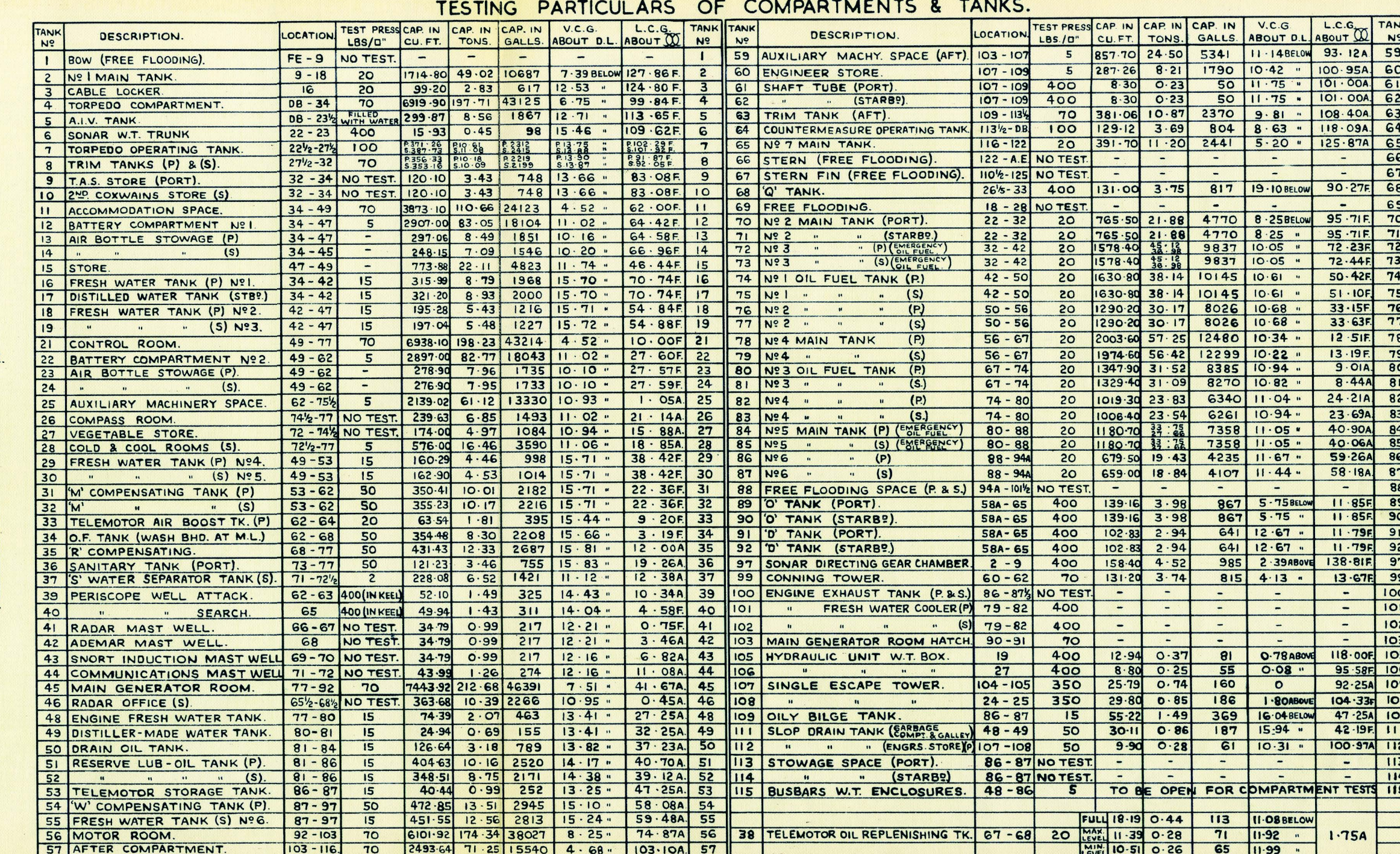
H.M.A.S. "OTWAY"
DIAGRAMMATIC ARRANGEMENT
OF SNORT INDUCTION MAST
FLOODING & DRAINING.
DRAWING No.246/OTWAY/415. FLY.



DIAGRAMMATIC ARRANGEMENT OF SANITARY SYSTEM.



SCALE $\frac{1}{16}" = 1 \text{ FOOT}$



THE 5 P.S.I. AIR TEST TO THE AUX. MACHINERY SPACE FRAMES 62-75½ NEED NOT BE CARRIED OUT PROVIDED AN ALTERNATIVE TEST OR INSPECTION IS CARRIED OUT TO PROVE TO THE OVERSEERS THAT THE FLAT OVERHEAD IS WATERTIGHT TO THE DEPTH OF THE COAMINGS.
PER MOD. LETTER - 19/6/65. REF. D.G.S./B/2/T/1/SS.09

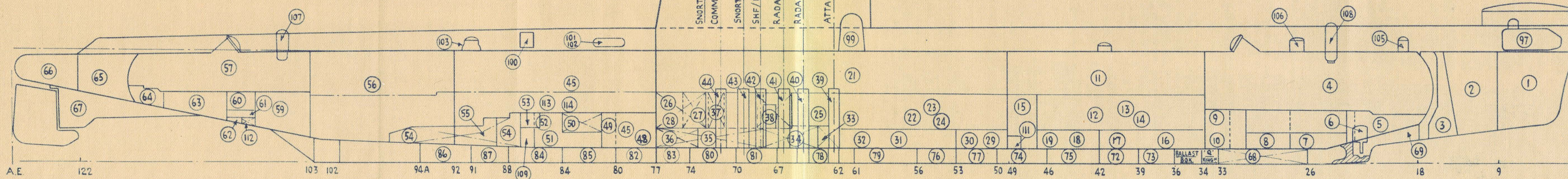
HMAS OXLEY OTWAY OVENS & ONSLOW
COMPARTMENT & TANK
TESTING PLAN. (FOR REFITS)

SCALE 1/16" = 1 FOOT.

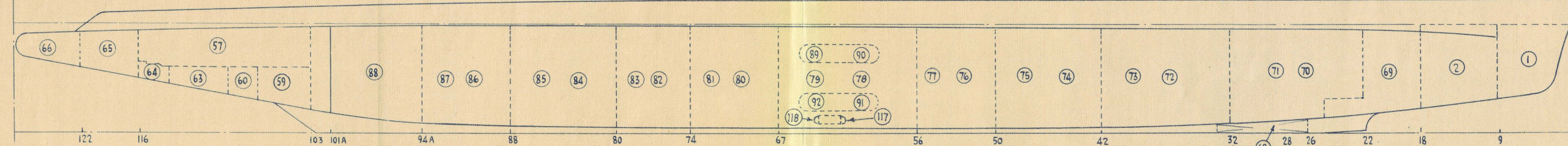
DRAWING NO 246/537 SHEET 13.

REFERENCE DRG. 246/318 (FOR REFITS).

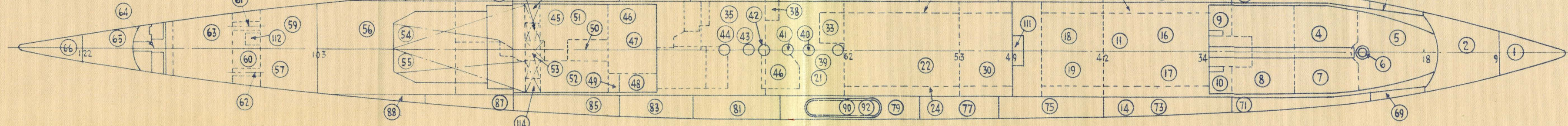
CENTRE LINE ELEVATION



SIDE ELEVATION



PLAN VIEW AT FLATS



TESTING PARTICULARS OF COMPARTMENTS & TANKS (FOR REFITS)

TANK Nº	DESCRIPTION	LOCATION	TEST PRESS. (LB/IN²)		MEDIUM		REMARKS	TANK Nº	TANK Nº	DESCRIPTION	LOCATION	TEST PRESS. (LB/IN²)		MEDIUM		REMARKS	TANK Nº
			PRELIM	FINAL	PRELIM	FINAL						PRELIM	FINAL	PRELIM	FINAL		
1	BOW (FREE FLOODING)	FE-9	—	—	—	—		1	60	ENGINEER STORE	107-109	—	—	—	—	COMBINED WITH 57	60
2	Nº1 MAINTANK	9-18	20	20	WATER	AIR		2	61	SHAFT TUBE (PORT)	107-109	400	—	—	WATER	—	61
3	CABLE LOCKER	16	—	—	—	—	CHECK FOR LEAKS DURING 2.	3	62	" " (STBD)	107-109	400	—	—	WATER	—	62
4	TORPEDO COMPARTMENT	DB-34	—	35	—	AIR		4	63	TRIM TANK (AFT)	109-113½	70	20	AIR	AIR		63
5	AIR TANK	DB-23½	—	—	—	WATER		5	64	COUNTERMEASURE OPERATING TK.	113½-DB	100	20	WATER	AIR		64
6	SONAR W.T. TRUNK	22-23	400	20	WATER	AIR		6	65	Nº7 MAIN TANK	116-122	20	20	AIR	AIR		65
7	TORPEDO OPERATING TANK (P&S)	22½-27½	100	20	WATER	AIR		7	66	STERN (FREE FLOODING)	122-A.E.	—	—	—	—		66
8	TRIM TANKS (P) & (S)	27½-32	70	20	AIR	AIR		8	67	STERN FIN (FREE FLOODING)	110½-125	—	—	—	—		67
9	T.A.S. STORE (PORT)	32-34	—	—	—	—	COMBINED WITH 4	9	68	" TANK	26½-33	400	20	WATER	AIR	KINGSTON TO BE SHORED	68
10	2ND COXWAINS STORE (S)	32-34	—	—	—	—		10	69	FREE FLOODING	18-28	—	—	—	—		69
11	ACCOMMODATION SPACE	34-49	—	15	—	AIR	BLANK GARBAGE EJECTOR	11	70	Nº2 MAIN TANK (PORT)	22-32	20	20	AIR	AIR		70
12	BATTERY COMPARTMENT Nº1	34-47	2	2	AIR	AIR		12	71	Nº2 " " (STBD)	22-32	20	20	AIR	AIR		71
13	AIR BOTTLE STOWAGE (P)	34-47	—	—	—	—	COMBINED WITH 11	13	72	Nº3 " " (P) OIL FUEL	32-42	20	20	WATER	AIR		72
14	" " (S)	34-45	—	—	—	—		14	73	Nº3 " " (S) OIL FUEL	32-42	20	20	WATER	AIR		73
15	STORE	47-49	—	—	—	—		15	74	Nº1 OIL FUEL TANK (P)	42-50	20	20	WATER	AIR		74
16	FRESH WATER TANK (P) Nº1	34-42	15	15	WATER	AIR		16	75	Nº1 " " " (S)	42-50	20	20	WATER	AIR		75
17	DISTILLED WATER TANK (STBD)	34-42	15	15	WATER	AIR		17	76	Nº2 " " " (P)	50-56	20	20	WATER	AIR		76
18	FRESH WATER TANK (P) Nº2	42-47	15	15	WATER	AIR		18	77	Nº2 " " " (S)	50-56	20	20	WATER	AIR		77
19	" " " (S) Nº3	42-47	15	15	WATER	AIR		19	78	Nº4 MAIN TANK (P)	56-67	20	20	AIR	AIR		78
20	CONTROL ROOM	49-77	—	15	—	AIR		20	79	Nº4 " " " (S)	56-67	20	20	AIR	AIR		79
21	BATTERY COMPARTMENT Nº2	49-62	2	2	AIR	AIR	COMBINED WITH 21	21	80	Nº3 OIL FUEL TANK (P)	67-74	20	20	WATER	AIR		80
22	AIR BOTTLE STOWAGE (P)	49-62	—	—	—	—		22	81	Nº3 " " " (S)	67-74	20	20	WATER	AIR		81
23	" " " (S)	49-62	—	—	—	—		23	82	Nº4 " " " (P)	74-80	20	20	WATER	AIR		82
24	AUXILIARY MACHINERY SPACE	62-75½	—	—	—	—	COMBINED WITH 21, 25, 36, 45	24	83	Nº4 " " " (S)	74-80	20	20	WATER	AIR		83
25	COMPASS ROOM	74½-77	—	—	—	—		25	84	Nº5 MAIN TANK (P) OIL FUEL	80-88	20	20	WATER	AIR		84
26	VEGETABLE STORE	72-74½	—	—	—	—		26	85	Nº5 " " " (S) OIL FUEL	80-88	20	20	WATER	AIR		85
27	COLD & COOL ROOMS (S)	72½-77	5	1	AIR	AIR	FRESH PIPE LINES DRAINAGE BE BLANKED	27	86	Nº6 " " (P)	88-94A	20	20	AIR	AIR		86
28	FRESH WATER TANK (P) Nº4	49-53	15	15	WATER	AIR		28	87	Nº6 " " (S)	88-94A	20	20	AIR	AIR		87
29	" " " (S) Nº5	49-53	15	15	WATER	AIR		29	88	FREE FLOODING SPACE (P & S)	94A-101½	—	—	—	—		88
30	" " " (S) Nº5	53-62	50	20	AIR	AIR		30	89	" TANK (PORT)	58A-65	400	20	WATER	AIR		89
31	" " " (S)	53-62	50	20	AIR	AIR		31	90	" TANK (STBD)	58A-65	400	20	WATER	AIR		90
32	TELE MOTOR AIR BOOST TANK (P)	62-64	20	20	AIR	AIR		32	91	" TANK (PORT)	58A-65	400	20	WATER	AIR	KINGSTON TO BE SHORED	91
33	" TANK (WASH BHD. AT M.L.)	62-68	50	20	WATER	AIR		33	92	" TANK (STBD)	58A-65	400	20	WATER	AIR		92
34	" COMPENSATING TANK	68-77	—	—	—	—	COMBINED WITH 37	34	97	SONAR DIRECTING GEAR CHAMBER	2-9	20	—	AIR	—	VACUUM TEST WITH DG FITTED	97
35	SANITARY TANK (PORT)	73-77	50	20	WATER	AIR			35	99	CONNING TOWER	60-62	70	—	AIR	—	
36	" WATER SEPARATOR TANK (S)	71-72½	—	—	—	WATER		36	100	ENGINE EXHAUST TANK (P & S)	86-87½	—	—	—	—		100
37	TELE MOTOR OIL REPLEISHING TANK	67-68	20	20	WATER	AIR		37	101	" FRESH WATER COOLER (P)	79-82	400	20	WATER	AIR		101
38	PERISCOPE WELL ATTACK	62-63	—	—	—	—	TESTED WITH 21, 25, 33, 34.	38	102	" " " (S)	79-82	400	20	WATER	AIR		102
39	" " SEARCH	65	—	—	—	—	" " 21, 25, 34.	39	105	HYDRAULIC UNIT W.T. BOX	19	400	35	WATER	AIR	FINAL TEST COMBINED WITH	105
40	RADAR MAST WELL	66-67	—	—	—	—	" " 25, 34.	40	106	" " " "	27	400	35	WATER	AIR		FINAL TEST OF 4.
41	SHF/DF MAST WELL	68	—	—	—	—	" " 25, 34, 35.	41	107	SINGLE ESCAPE TOWER	104-105	—	300	—	WATER	WITH STRONGBACKS FITTED.	107
42	SHORT INDUCTION MAST WELL	69-70	—	—	—	—	" " 25, 35.	42	108	" " " "	24-25	—	300	—	WATER	—	108
43	COMMUNICATIONS MAST WELL	71-72	—	—	—	—	" " 25, 35, 37.	43	109	OILY BILGE TANK	86-87	15	—	WATER	—	BLANK OPEN DRAIN FROM AFT	109
44	MAIN GENERATOR ROOM	77-92	—	15	—	AIR	COMBINED WITH 56	44	111	SLOP DRAIN TANK (GARBAGE COMPY)	48-49	50	20	WATER	AIR		111
45	RADAR OFFICE (S)	65½-68½	—	—	—	—	COMBINED WITH 21, 25.	45	112	" " (ENGRS STORE) (P)	107-108	50	20	WATER	AIR		112
46	ENGINE FRESH WATER TANK	77-80	15	—	—	WATER	BLANK ENGINE FW HEADER TANK	46	113	STOWAGE SPACE (PORT)	86-87	—	—	—	—	COMBINED WITH 45, 51, 53, 54, 109.	113
47	DISTILLER-MADE WATER TANK	80-81	15	15	WATER	AIR	OVERFLOW AT TANK 109	47	114	" " (STBD)	86-87	—	—	—	—	COMBINED WITH 45, 52, 53, 54, 109.	114
48	DRAIN OIL TANK	81-84	15	15	WATER	AIR		48	115	BUS BARS W.T. ENCLOSURES	48-86	—	5	—	AIR		115
49	RESERVE LUB-OIL TANK (P)	81-86	15	15	WATER	AIR		49	116	GARBAGE EJECTOR	47½	400	5	WATER	AIR		116
50	" " " (S)	81-86	15	15	WATER	AIR		50	117	DISTILLED WATER COOLER BWC(P)	61A-64A	400	30	WATER	AIR	FINAL TEST IN CONJ. WITH	117
51	TELE MOTOR STORAGE TANK	86-87	5	2	WATER	AIR	PRELIM TEST ON STRUCTURE ONLY.	51	118	" " " " (S)	61A-64A	400	30	WATER	AIR		BATTERY COOLING SYSTEM TEST.
52	" " COMPENSATING TANK (P)	87-97	50	20	AIR	AIR	FINAL ON RUBBER TANK.	52									
53	FRESH WATER TANK (S) Nº6	87-97	15	15	WATER	AIR		53									
54	MOTOR ROOM	92-103	—	15	—	AIR	COMBINED WITH 45	54									
55	AFTER COMPARTMENT	103-116	—	70	—	AIR		55									
56	AUXILIARY MACHY SPACE (AFT)	103-107	—	—	—	—	COMBINED WITH 57	56									

✓ PRELIM TEST TO BE OF 48 HOURS DURATION WITH A LAYER OF FUEL OIL 3" DEEP ON TOP OF THE WATER.
✓ TEST PRESSURE TO BE INCREASED AS NECESSARY TO SUIT BURSTING DISC.
✓ FINAL TEST - FILL WITH WATER TO 6" ABOVE FILTER LEVEL.

H.M.A.S. "OTWAY".
DOCKING PLAN. (AS FITTED)

SCALE: 1/16" = 1 FOOT.

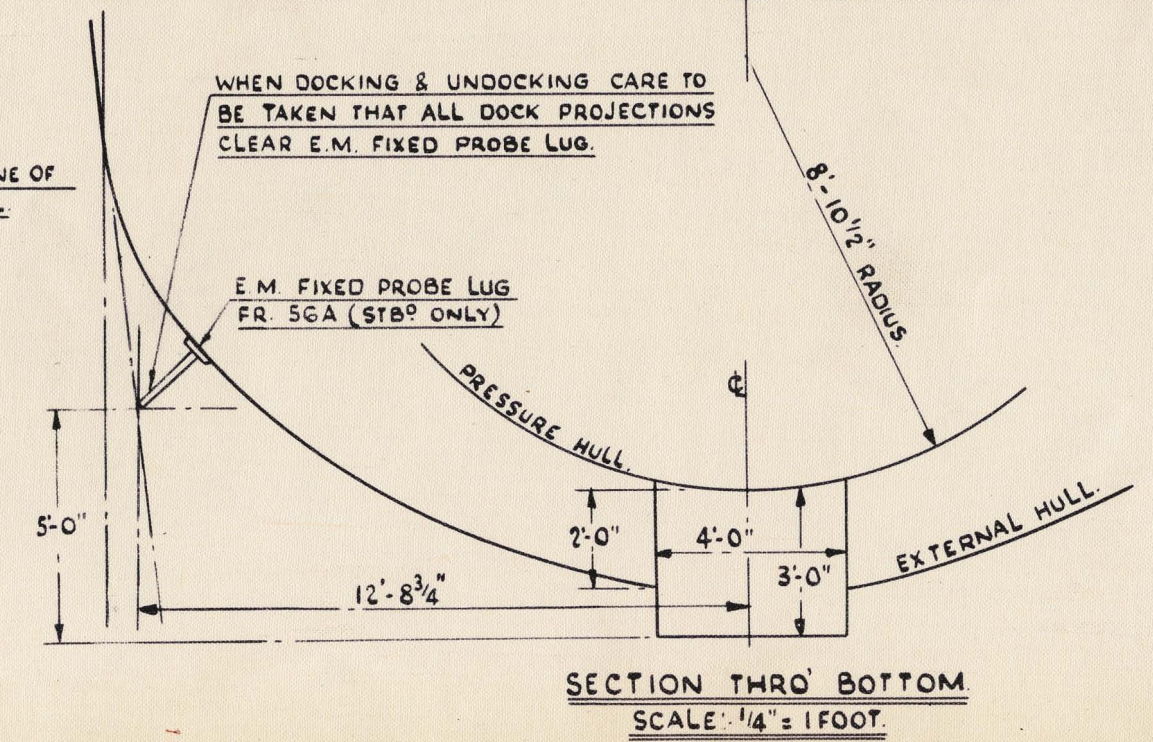
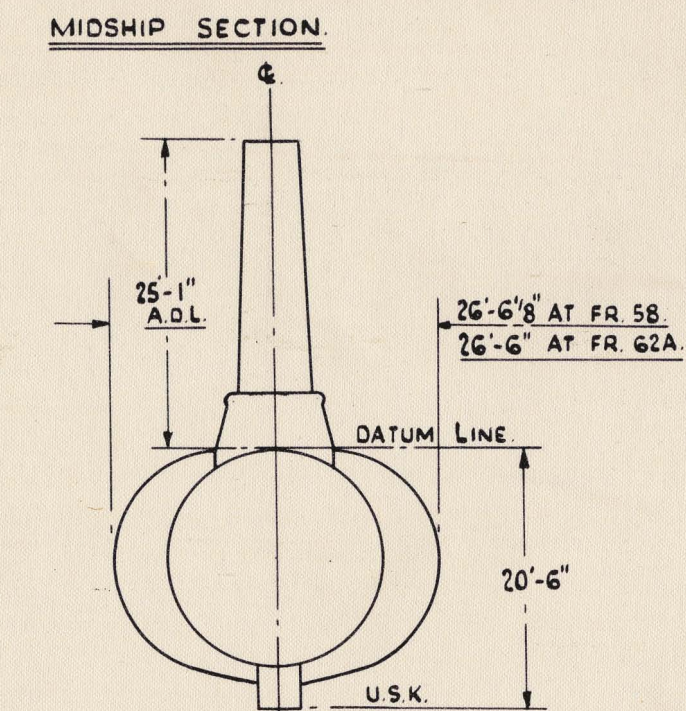
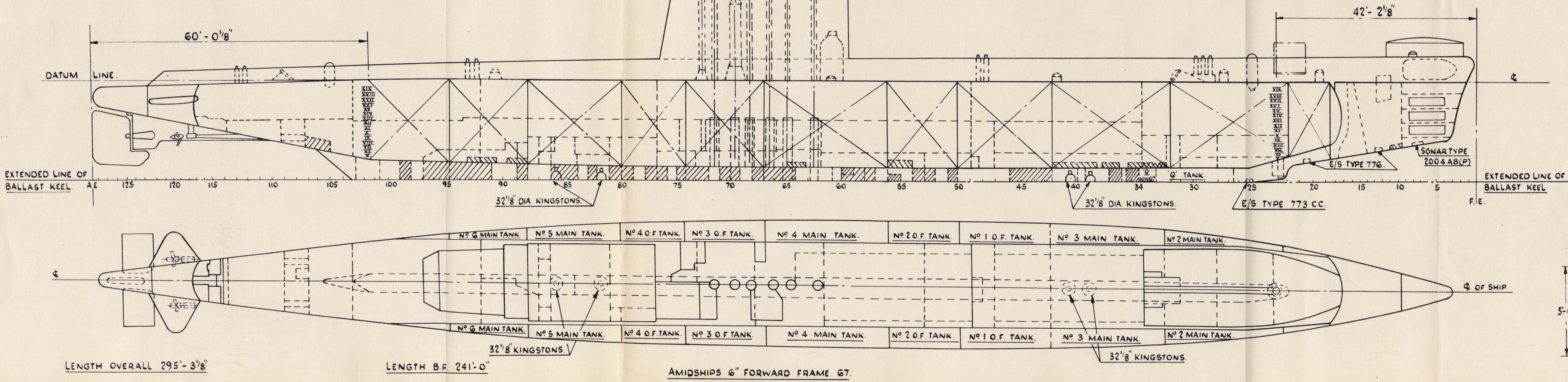
CONDITIONS WHEN ENTERING FITZROY DOCK, COCKATOO ISLAND, SYDNEY.		
WHEN THE VESSEL IS FULLY STORED, PROVISIONED & ARMED & WITH THE TANKS IN THE FOLLOWING CONDITION:-		
ALL MAIN TANKS (P & S)	- BLOWN.	
TORPEDO OPERATING TANKS (P & S)	- FULL	
FORWARD TRIM TANK.	- 1400 GALLONS.	
ALL OTHER TRIM & COMPENSATING TKS. ALL OIL FUEL TANKS. ALL LUBRICATING OIL TANKS. ALL FRESH WATER TANKS. DISTILLED WATER TANK.	} EMPTY	
THE VESSEL WILL FLOAT AT THE FOLLOWING DRAUGHTS:-		
FORWARD		14 FEET 0 INCHES.
AFT.		15 FEET 3 INCHES.

DOCK.	DEPTH OF WATER AT M.H.W.S.		
	SILL.	ENTRANCE	HEAD
FITZROY.	20'-1"	17'-4"	14'-8"
SUTHERLAND.	31'-10"	30'-7"	30'-7"
M.H.W.N. IS ABOUT 10" LESS THAN M.H.W.S.			

CONDITION OF VESSEL.	DESIGN DISPLACEMENT	CORRESPONDING DRAUGHT AMIDSHIPS.	TRIM BY STERN BETWEEN MARKS.	T.P.I. LEVEL TRIM.	L.C.B. FWD OF AMIDSHIPS LEVEL TRIM.	MOVEMENT OF L.C.B. FOR 1 FT CHANGE OF TRIM BETWEEN MARKS.	V.C.G. BELOW DATUM.
NORMAL SURFACE	2196 TONS	18'-4 3/4"	1'-6 1/2"	10.1	11.7 FEET	1.3 FEET	9.9 FEET
FULL BUOYANCY	2057 TONS	17'-4"	2'-0"	11.4	11.7 FEET	1.5 FEET	9.9 FEET
LIGHT.	1624 TONS	14'-5"	2'-7 1/2"	12.9	12.3 FEET	2.3 FEET	9.7 FEET

NOTE: LIGHT CONDITION IS WITH ALL TORPEDOES, SMALL ARMS & AMMUNITION, OIL FUEL & COMP. WATER, FRESH WATER, DISTILLED WATER, ENGINE F.W., LUBRICATING OIL, PROVISIONS, SPARE GEAR, NAVAL STORES, TRIM & COMPENSATING WATER REMOVED. CREW, TELEMOTOR OIL & SALT WATER SEALS 3 & 5 MAIN TANKS FULLY BLOWN ASSUMED ON BOARD.

CAST IRON PERMANENT BALLAST.		OTWAY.
LOCATION.		TONS.
AUXILIARY MACHINERY SPACE	FRAMES 105-107	2.50
AFT BALLAST BOX.	FRAMES 94A-97, 98-99.	13.80
Nº 6 MAIN TANK.	FRAMES 88-89, 91-94A	18.00
Nº 6 MAIN TANK WINGS STB ONLY.	FRAMES 88-89 3/4, 90 1/4-93.	4.00
Nº 5 MAIN TANK.	FRS 80-81, 82-83, 84-86	13.20
Nº 4 OIL FUEL TANK.	FRS 74-75, 76-78, 79-80	12.80
Nº 3 OIL FUEL TANK.	FRS 67-68, 69-71, 72-74.	15.17
Nº 4 MAIN TANK.	FRAMES 57-60, 64-70.	18.35
Nº 4 MAIN TANK WINGS STB ONLY.	FRAMES 63 1/2-65	1.85
Nº 2 OIL FUEL TANK WINGS STB ONLY.	FRAMES 54-56.	4.00
Nº 2 OIL FUEL TANK KEEL.	FRS 55-56, 50-51, 52-54.	10.23
Nº 1 OIL FUEL TANK.	FRAMES 42-45.	19.02
Nº 3 MAIN TANK WINGS STB ONLY.	FRS 32-35 1/2, 36-37 1/2, 38 1/4-42	5.50
FORWARD BALLAST BOX.	FRAMES 34-35 1/2, 36-37	8.50
Nº 1 MAIN TANK.	FRAMES 9-11.	0.60
TORPEDO COMPT. STORE.	FRAMES 32-34.	2.50
TOTAL		150.02



HMAS OTWAY Small Scale Drawings.txt

From: Holbrook Submarine Museum

ID: PB 22

Location: Holbrook Submarine Museum mezzanine floor

Scanned: 2023-01-01

Scanned By: Dirk Stoffels

Doc Source: Navy Office Canberra

Doc Marking: NAVAL Constructor Overseer 12 Aug 1968 Messrs. Scott's S. & E. Co Ltd. GREENOCK

Doc Marking: Plan No. 164A/0300/001 NAVY Office Canberra Copy No. 2

Scanning Notes: A4 segments scanned on Epson V700 flatbed. Segments stitched together in CorelDraw and exported to TIF.